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NATIONAL ECONOMY AND THE BANKING SYSTEM OF THE UNITED STATES

AN EXPOSITION OF THE PRINCIPLES OF MODERN MONETARY SCIENCE IN THEIR RELATION TO THE NATIONAL ECONOMY AND THE BANKING SYSTEM OF THE UNITED STATES

BY

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PRESENTED BY MR. LOGAN

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FOREWORD

Twenty-five years ago today Woodrow Wilson, in the presence of members of his Cabinet, chief executive officers, and leaders of the United States Senate and House of Representatives, approved the Federal Reserve Act. Three solid gold penholders and pens had been prepared for the occasion. Three original copies of this act were printed in parchment and signed by Hon. Champ Clark, Speaker of the House of Representatives; Hon. Thomas R. Marshall, President of the Senate; and the President of the United States.

One of these copies went to the Secretary of State, Hon. William Jennings Bryan, for permanent record. One of the copies was presented to Hon. Carter Glass, chairman of the Committee on Banking and Currency of the House of Representatives, and one was presented to the chairman of the Committee on Banking and Currency of the United States Senate. One of the gold pens was given to Hon. William Gibbs McAdoo, Secretary of the Treasury; one to Hon. Carter Glass; and one to the chairman of the Senate committee.

This act was generally regarded as the greatest achievement of that administration.

Under this act $40,000,000,000 of liquid money was created to finance the World War. It financed not only the United States but financed to the extent of billions of dollars Great Britain, France, Italy, and their allies. "That one act won the war," said John Skelton Williams, the Comptroller of the Currency.

The United States came out of this war in a highly prosperous condition. This prosperity was the result of the expansion of credit and currency which enormously stimulated production and employment.

In 1921 those in control of the Federal Reserve System contracted credit and currency by the use of the great powers of the Federal Reserve Act. It resulted in depression.

Again in 1929–32 another depression followed the contraction of the money supply. And a third depression took place in 1937 from a similar cause.

The Federal Reserve System is supported by men of all parties. Under no circumstances should it be considered in a partisan light. Its operation vitally affects the economic and financial condition of the entire country, including the Government itself.

There is lacking in the United States an informed public opinion as to the cause and cure of depression.

With the hope of laying the foundation for a better understanding of the principles of the Federal Reserve System and the use of its powers to restore prosperity and prevent future depression, this commentary is submitted for the considerate judgment of leaders of public opinion in the United States.

Trusting that this vital matter may not be clouded by any attempt to fix the blame on anybody, or to attempt to gain partisan advantage, I remain

Your faithful servant,

R. L. O.

DECEMBER 23, 1938.

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NATIONAL ECONOMY AND THE BANKING SYSTEM OF THE UNITED STATES

Chapter I

WHY MONEY WAS INVENTED

Money was invented as a measure of value to enable people to exchange anything they had to sell for what they wanted, whether services, commodities, or property.

In the earliest days of civilization men were compelled to rely upon barter, to exchange a cow for so many sheep or goats, to exchange a bow and arrow for a deerskin. Under such conditions there was little or no incentive to manufacture the things people wanted in quantity. There was also no incentive for merchandising. There were no factories and no need for improved transportation to ship goods from one point to another.

Many centuries ago, gold and silver were employed as a medium of exchange because they were universally desired for their beauty, resistance to corrosion and rust, compactness, and malleability. They were particularly desired for ornaments. Therefore, they came into use as a medium of exchange and as a measure of value.

Obviously, without money, a farmer who brought to town his vegetables, fruits, eggs, chickens, milk, and butter could not, through barter, go into a store and buy shoes and stockings, shirts, and other clothing in exchange in barter for these articles. It was necessary for him first to convert the things he had into money and with the money obtained to buy the things he wanted from the store. He also needed money with which to pay the doctor and the dentist.

Thus, money was invented as a common denominator of products and services for sale. Money became a measure of value and was employed as a medium of exchange. Also, since money could be employed at any time, it became a means of storing value which could be instantly used in buying anything desired. So that money thus had three distinct purposes: As a measure of value, as a medium of exchange, and as a means of saving or hoarding against the day of need.

Of course, money, when invented, was capable of minute subdivisions whether it was of silver or gold.

All modern money is capable of minute subdivision. The money of the United States for example, consisting of the dollar, is divisible into one-tenth of a dollar, called a dime; one-hundredth of a dollar, called a cent; and one-thousandth of a dollar, called a mill. This facilitates addition and subtraction and the keeping of accounts. One of the important reasons for the invention of money was to enable men to keep an account of their indebtedness to each other with accuracy, so that repayment could be made with precision and certainty.

The monetary unit in the United States was declared by law on the 5th of April 1792, in a statute signed by President George Washington. This dollar has been the monetary unit of account in lieu of the other forms of money from that day to this.

WHY MONEY ORIGINALLY HAD INTRINSIC VALUE

When money was first invented, principally in the form of silver and gold, it was necessary that the commodity silver or the commodity gold employed as money should have, in itself, exchange value. It was necessary that it should have intrinsic value because at that time there was no government exercising sovereignty of a dependable stability which could by law regulate the value of money or regulate the quality and quantity of the commodity to be employed as money.

As time progressed the modern nations minted coin tokens of gold and silver which had at first dependable intrinsic value but which were subject to change by the authority of the government, so that from time to time many governments were found, for their own convenience, changing the metallic intrinsic value of the gold and silver coin by using alloys of metal of less value.

What proved to be more important was the instability of the issuance of money by government. For example, the French Government at the beginning of the World War had about 16 billion paper francs redeemable on demand in gold which were circulated in France as the equivalent of gold. Under the extreme exigencies of the war, the paper franc was expanded to about 80 billion francs and was no longer convertible into gold as it had been previous to 1914. As a consequence, this currency, which was deemed to be on a gold standard, diminished in its purchasing power to approximately one-fifth of what it had been before, and at present is worth about 2.8 cents instead of 19.3 cents (pre-war value) because of recent expansion and because of a loss of gold with which to redeem it.

Because money having intrinsic value, such as gold, is preferred by the people to paper money having no intrinsic value, when the two moneys are both in circulation the gold money will be hoarded and disappear whenever there comes any undue expansion of the paper money. For this and other reasons all of the nations in the world have now abandoned the use of gold as domestic currency.

The money of the United States depends for its value not on the gold content of the dollar but strictly on the credit of the United States and the demand for such money, with which to pay taxes, interest, the cost of living, etc.

WHY IT IS NO LONGER NECESSARY FOR MONEY TO HAVE INTRINSIC VALUE

The need for an intrinsic value of money which existed in former years no longer exists in the United States. In previous times governments afforded no dependable security in the volume of money and in the regulation of the value of money. Their paper money was liable to expansion to a point where it decreased in purchasing power. Therefore the people preferred gold as money because its purchasing power did not fall as paper money did. But unfortunately for the

stability of money in those days, whenever the paper money began to fall in value, gold money was held by the people and hoarded and thus retired from circulation, under the working of the so-called Gresham law. This law is no longer applicable in the United States because the Congress of the United States, having learned that gold as money in domestic circulation was a source of weakness, abolished the use of gold in our domestic circulation, and confined its use to international exchange as a commodity, the price of which was arbitrarily fixed at $35 an ounce.

Now all paper money has, for the same reason, been made legal tender. The value of this money is determined by the demand for it. The demand is so great and the credit of our Government is so high that legal tender currency has not only the purchasing power which the gold dollar had in 1926, but it has a present purchasing power index of 130 (December 1938). In other words, it has a purchasing power which has increased in terms of 784 listed commodities sold in the wholesale markets by 30 percent as compared with 1926, which had a normal predepression price level of 100.

The further reason why it is no longer necessary that our legal-tender money have intrinsic value is the collosal demand for money, as compared to the supply of money. In 1926 the demand for check money was demonstrated to be $845,000,000,000 as proven by the amount of check money debited on the books of our banks.

In 1929, the volume of this check money rose to $1,230,000,000,000, which at that time was 100 times the total monetary gold supply of the entire world and about 300 times the entire monetary gold supply in the United States.

It is perfectly obvious that this turn-over of money through checks could not possibly have been supplied by the use of gold. The modern banking system has therefore created conditions which make the use of gold as money entirely impracticable. The use of gold for currency would prevent the huge business which is now being carried on by the American people.

Another important reason why our money should not have intrinsic value is that it would deprive Congress of the power to regulate the value of money by regulating the volume of money. Congress could not regulate the volume of gold used as a currency, gold being limited in amount, by nature, and is subject to immediate hoarding and to shipment abroad if any question should arise to justify it. Congress can regulate the volume of money in the form of legal tender currency and also in the form of demand bank deposits (which will be described later) upon which check money is based.

It thus follows that not only is there no longer any reason for our legal-tender currency having intrinsic value, but there is a compelling reason why our currency should not have intrinsic value. It should have only extrinsic value. It should only have an exchange value as a token. Currency being a creature of Government, the value of which must be regulated by the Government, the control of the money supply must be kept within the control of the Government itself.

Chapter II

MONEY A CREATURE OF LAW

The money of the United States is a creature of law. The Constitution of the United States gave to Congress the broad power exclusively to create money. It withheld and denied to the States this power. The Supreme Court of the United States in the *Legal Tender cases* (79 U. S. 544), gave this interpretation of the Constitution. It has remained unchallenged and is not now denied by any informed person.

We quote a portion of the opinion in the *Legal Tender cases:*

> Congress, as the legislature of a sovereign Nation, being expressly empowered by the Constitution "to lay and collect taxes, to pay the debts and provide for the common defence and general welfare of the United States," and "to borrow money on the credit of the United States," and "to coin money and regulate the value thereof and of foreign coin"; and being clearly authorized, as incidental to the exercise of those great powers, to emit bills of credit, to charter national banks, and to provide a national currency for the whole people, in the form of coin, treasury notes, and national bank bills; and the power to make the notes of the Government a legal tender in payment of private debts being one of the powers belonging to sovereignty in other civilized nations, and not expressly withheld from Congress by the Constitution; we are irresistibly impelled to the conclusion that the impressing upon the treasury notes of the United States the quality of being a legal tender in payment of private debts is an appropriate means, conducive and plainly adapted to the execution of the undoubted powers of Congress, consistent with the letter and spirit of the Constitution, and therefore, within the meaning of that instrument, "necessary and proper for carrying into execution the powers vested by this Constitution in the Government of the United States."

In addition to the broad power exclusively to create money for the people of the United States, the Constitution, in article I, section 8, paragraph 5, gave Congress the explicit direction "to coin money and to regulate the value thereof * * *."

When the State banks issued paper money, Congress imposed a tax of 10 percent annually upon such paper money and suppressed it.

The Supreme Court held that the term "to coin money" meant to print money on paper as well as to impress the Government stamp on metal.

All of our paper currency is therefore directly authorized by the Constitution, as interpreted by the Supreme Court. All such money is necessarily "fiat" of government and is printed on the printing press. It is necessarily "fiat" money, or "printing-press money," although these terms have been used derisively by those who preferred gold coin as money, or who preferred paper money made redeemable in gold coin.

No one understood the powers of the Government in relation to money better than Abraham Lincoln. As a means of preserving the Union, Lincoln issued legal-tender money in 1861 that was receivable for all public and private debts. This money never fell below gold parity.

On March 14, 1900, the Gold Standard Act was passed by the Congress, declaring the dollar to be 25.8 grains, troy weight, of gold, nine-tenths fine. This act placed $150,000,000 of gold coin in the United States Treasury to keep at parity all paper money issued, by promising to redeem on demand this paper money in gold coin. The act provided for the issuance of 3-percent gold bonds as a means of supplementing this supply of gold redemption money in case this $150,000,000 should be depleted.

Up to the domestic demonetization of gold in 1934, this gold fund of $150,000,000 in gold coin had not been depleted, for the simple reason that the demand for dollars was so great that the people did not care to redeem their paper currency in gold.

In 1933 Congress authorized the President to change the value of gold in terms of dollars. He did so, making gold worth $35 an ounce instead of $20.67 an ounce, as under the Gold Standard Act. Under the act of January 1934, Congress demonetized gold in our domestic circulation and has accumulated gold in the vaults of the Government to the extent of $14,000,000,000. Gold is still flowing into the United States from other parts of the world for the simple reason that our legal-tender dollar has a greater purchasing power in the United States than gold at $35 an ounce.

THE CREATION OF MONEY A SOVEREIGN POWER OF GOVERNMENT

When the Constitution of the United States gives the exclusive right to Congress to coin money and regulate the value thereof, it should be obvious that it gave the exercise of a sovereign power extending over the 48 States, Territories, and dependencies of the United States. By its very nature, the function of the creation of money should be exercised by the Central Government alone, as a sovereign power. It would be impossible, if this power were subdivided, to regulate the value of money by regulating the volume of money.

It is of the greatest importance to note that the failure of the Congress of the United States to exercise this sovereign power led to the creation of money by privately owned individual banks acting in cooperation with their borrowers.

In 1863 President Lincoln was compelled to yield to the demand for the establishment of the national-bank system, under which individual banks were authorized to issue national bank notes based on the bonds of the United States. This resulted in the issue of national bank notes of various denominations by each individual bank. These notes were not legal tender but were generally received because Congress, in the exercise of its sovereign power, had authorized the banks to issue such notes. The national bank notes, however, are in process of retirement. They are being supplanted by the Federal Reserve note and the silver certificate.

The Federal Reserve note is a note of the United States Government which was issued, or loaned, to the individual 12 Federal Reserve banks through the Federal Reserve agent at the headquarters of each bank against the security of bonds, gold, and other sound bankable assets. The issuance of these notes by the United States was an act of sovereign power.

In 1933, as an act of sovereign power, they were all made legal tender. This issue exceeds $4,500,000,000.

The silver certificate, consisting of $1 bills, says on its face that it is redeemable in $1 in silver. This means a coined silver dollar, or silver bullion at $1.29 per ounce. The present market price of silver (July 1938) is about 42 cents an ounce instead of $1.29 an ounce.

The silver certificate, therefore, outside of its bullion value in silver is based upon the sovereign power of the United States, the credit of the Government, and the demand for the dollar bill. The demand for

the dollar bill as a means of exchange is very great. No one ever thinks of redeeming a silver certificate dollar bill in bullion silver.

The coinage of the silver dollar, half dollar, quarter, and dime is an act of sovereignty; also the 5-cent piece, the nickel; or the 1-cent piece of copper.

So that all the currency of the United States, coined by the United States, is created by an act of sovereignty, universally respected by the American people.

A check of a demand-bank depositor on a solvent bank is payable on demand in legal-tender money. Thus the check is itself money. The check transfers from one person to another in this way legal-tender money, or the right to legal-tender money.

The right of the national banks to receive deposits, subject to check, and the right of the national banks to make loans to private citizens, or to buy the bonds of the United States, thus making loans to the Government, is a grant by legislative power to the national banks to create money.

The State banks exercise the same privilege by implied consent. It must be remembered that money is "anything having a conventional use employed as a medium of exchange and measure of value." A check represents a given number of monetary units employed as a measure of value. When it is given by the maker to the payee, it is a medium of exchange transferring a fixed number of dollars from the maker to the payee and is convertible on demand into legal-tender currency.

In this manner, the sovereign right to create money, which exclusively belongs to the Congress, has been transferred to privately owned corporations, not only in the national banking system, but also to the privately owned corporations comprising the individual banks established under the laws of the 48 different States.

Chapter III

THE FORMS OF MONEY

There have been very many forms of money employed in the United States, including not only gold and silver, nickel and copper, coined by the Government, but gold coined by private individuals and companies, and tokens of other metals employed by private trading companies. In addition to these tokens, employed as money, there have also been printed many other forms called scrip, printed on paper, leather, metal, wood, etc.

In the Chase National Bank of New York there are 2,000 forms of scrip money on display, a large part of which was made in the United States during the hoarding of currency in the depression of 1929–32.

The Government of the United States in its bulletin on domestic coin sets forth the total issue of all types of coin employed by the people of the United States as money. A brief summary follows, 1938:

Gold	$4, 226, 218, 477. 50
Silver	1, 481, 204, 639. 80
Minor	152, 641, 888. 11

Besides these issues by the Government, there were many issues by private persons and corporations (see the Standard Catalog of United

States Coins and Currency, published by the Scott Stamp & Coin Co., New York City).

In addition to these forms functioning as currency there was a great variety of stamps employed as money in payment of letters and parcels transmitted by mail and in payment of internal revenue upon various articles of merchandise. They are designated in monetary units and fractions thereof.

The most familiar form of money, outside of the fractional coin and currency, is the check of a depositor upon his demand-bank deposit, which transfers from the maker to the payee a certain number of dollars and fractional parts thereof. Over 95 percent of our national monetary business is transacted by the use of the check. A check is a simple order on the bank to pay to the payee, or bearer, a given number of dollars and its decimal parts thereof, and charge it to the account of the maker of the check.

The advantage of the check, as money, is that it transfers from one person to another a given number of dollars, no matter how large, on a single slip of paper. The transfer to the payee is guaranteed by the bank, which is responsible for identifying the signature of the maker and the signature of the payee when the check is cashed by the bank, or paid by the bank through the transfer of the demand-bank deposit from the maker to the payee.

In this way the transfer of money is greatly facilitated, cheapened, and safeguarded. To pay a million dollars in gold and silver by transmitting the bullion would be expensive, require insurance, and take an unnecessary element of time. If money had to be transmitted by mail or express it would necessarily involve insurance and risk. A check which is lost can be immediately canceled and replaced.

Another great advantage of check money is that it enables the books of businessmen to be kept with ease and accuracy and enables, them, from their bank books, to make up their income taxes, accounts, etc., with dependable certainty; whereas, if they paid their bills in currency it would be necessary for them to keep receipts for all such transactions, and to take the currency in person and deliver it to the merchants or payee at a considerable expense of time and trouble.

These difficulties are avoided by the check system which is safer, cheaper, and more expeditious.

These are the fundamental reasons why this form of money has grown in public favor in the United States and that check money transactions have reached the collosal figures heretofore mentioned, as $845,000,000,000 of check money paid through the banks in the normal predepression year of 1926.

THE PROPER DEFINITION OF MONEY AS EMPLOYED IN THE UNITED STATES

Webster defines money as—

* * * anything having a conventional use as a medium of exchange and measure of value.

The Century Dictionary and Encyclopedia defines it thus:

In a wider sense, any article of value which is generally accepted as a medium of exchange; also, by extension, something which, though possessing little or no intrinsic value, is recognized and accepted as a substitute for money as above defined, such as paper money; any circulating medium of exchange.

Professor Walker defines it as:

> Any medium, no matter of what it is made or why people want it, which no one will refuse in exchange for his goods.

In recent years, since the passage of the Federal Reserve Act, check money has been used as a medium of exchange and accepted without discount by the banks of the Reserve System and by the Reserve banks so that checks in transit go into the hundreds of millions of dollars at any given time. These checks function as money. They represent money. They are safeguarded against counterfeiting by law. They are safeguarded against fraud. They comprise the greatest medium of exchange and measure of value in the United States, their volume reaching the colossal figure in 1929 of $1,230,000,000,000. They transact over 95 percent of the monetary business of the United States; and even the currency which is employed by the people is usually obtained by cashing a check in the bank and converting the check into legal tender money.

Demand bank deposits, convertible on demand into legal tender currency thus constitute money, subject to immediate transfer from one person to another.

The demand bank deposits, as of June 30, 1938, amounted to approximately $26,000,000,000.

The total amount of currency in circulation outside of the United States Treasury amounted to $6,461,000,000 as of June 30, 1938. Of this currency, there was $712,000,000 held by the banks [1] of the United States for the purpose of cashing checks on demand. The banks also held as reserves in the Federal Reserve Banks, convertible into currency on demand, $7,878,000,000, as of June 30, 1938. The merchants and businessmen of the country held for change with their customers probably $1,500,000,000, although this amount has not been accurately ascertained. About $500,000,000 of currency has been destroyed or lost in process of time, or has gone abroad. The remainder of the currency in circulation outside of the Treasury is in the pockets of the people or hidden away, representing money which individuals hold as savings deposits and hoard as savings deposits, and a balance which is actively employed every day by the people in their daily purchases of commodities and services. It has been estimated that the currency received for wages and salaries has a turn-over of approximately 26 times per annum, on an average. This estimate of turn-over is merely a rough guess not capable of accurate determination.

It is estimated that check money actively employed in transacting the business of the country has a turn-over of approximately 50 times per annum for the reason that money so employed is used as economically as possible. In 1929 when the demand bank deposits were $24,000,000,000 and the time deposits, quickly convertible into demand bank deposits, were $10,000,000,000, the actual check money amounted to 50 times the demand bank deposits, not counting any turn-over whatever of the time deposits.

So we see that the money of the United States consists of currency, demand bank deposits, and checks drawn against demand bank deposits.

The modern use of the word "money" is expressed very well by the statement made by the Honorable Marriner S. Eccles, chairman of

[1] Member banks Federal Reserve System.

the Board of Governors of the Federal Reserve System before the Banking and Currency Committee of the House of Representatives.

In purchasing offerings of Government bonds, the banking system as a whole creates new money, or bank deposits. When the banks buy a billion dollars of Government bonds as they are offered—and you have to consider the banking system as a whole, as a unit—the banks credit the deposit account of the Treasury with a billion dollars. They debit their Government bond account a billion dollars, or they actually create, by a bookkeeping entry, a billion dollars.

Chapter IV

THE FUNCTION OF MONEY AS A MEDIUM OF EXCHANGE

The chief use of money is as a "medium of exchange." This means a medium through which the exchange of property, commodities, or services of one citizen can be transferred for the property, commodities, or services of another citizen. In other words, a citizen who receives payment in exchange for his labor, as wages or salary, receives it in money. He then uses his money to buy the services and labor, or the products of the labor, of another citizen. A farmer sells his products, such as corn and wheat, for money and uses the money as the medium of exchange with which to buy any of a thousand articles for sale in, say, a department store. In this way the money becomes a medium by which he exchanges his products for the products of other people, collected from the ends of the earth in a department store.

A citizen who receives his wages in money, uses the money to buy small services, such as the money due for the newspaper, for stamps, for express charges. Thus money is a medium of exchange for the labor of the citizen, for the services of government, and for the services of corporations.

This use of money as a medium of exchange is of supreme importance and has increased in modern civilization to an extent not generally understood. Money, as a medium of exchange, is required in order to pay taxes, interest, living expenses, the expense of manufacturing goods, the expense of transporting commodities, the expense of selling and advertising commodities, and the expense of the professional services of the doctor, dentist, and lawyer. Money is needed for the sale of all the commodities in the wholesale markets. Money, as a medium of exchange, is needed for the transfer of stocks and bonds, real estate, equities, property, and services of all kinds.

This demand for money, as a medium of exchange, is what gives value to money as a creature of law, although the money itself has no intrinsic value. As previously stated, the check money, debited on the books of all the banks of the United States in the year 1926, was $845,000,000,000, and in 1929 was $1,230,000,000,000, which demonstrates the enormous use to which money as a medium of exchange is employed.

THE FUNCTION OF MONEY AS A MEASURE OF VALUE

In order that money may be used as a "medium of exchange," it must have the quality of being a "measure of value." Money in the market place measures the value of commodities. Money in the security exchanges operates as a measure of value of stocks and bonds. Money measures the value of real estate. Money is used as a measure

of value for public services, such as carrying the mails, express services, professional services, and transportation. Money is used as a measure of value in insurance policies, in savings accounts, in evidence of debt, such as bonds and notes.

Money may be employed as a measure of value in forms where such money does not function as a medium of exchange. Ordinarily it functions both as a "medium of exchange" and as a "measure of value." But money may be used as a measure of value without being actively employed as a medium of exchange.

A savings account and a time deposit accurately measure the value in monetary units of the debt due to the depositor, and even a demand bank deposit may be a measure of value of the depositor's account in monetary units without such demand deposit being employed as a medium of exchange. A demand deposit which is held by the depositor unemployed, or inactive, is a measure of the value of his deposit; but, if it is not employed to pay others, it is not a medium of exchange except in a potential sense; that is, it may be converted into a medium of exchange by giving it circulation.

THE DIFFERENCE BETWEEN VALUE AND EXCHANGE VALUE

The air we breathe is of great value to life, but is has no exchange value. It is not a subject for merchandising. A bushel of wheat has value as food to the man who raises it, and eats it, but that transaction involves no exchange value. The food which Robinson Crusoe found on the island had no exchange value, not even for barter.

The exchange value of a commodity depends upon the exchange of the commodity for other commodities by barter or by selling for money. The exchange value of wheat by barter depends upon the supply of the wheat, the demand for the wheat, and the supply of the commodity and demand for the commodity with which it may be exchanged, as so many bushels of wheat for so many sheep. The exchange value of wheat in terms of dollars depends upon the supply of wheat, the demand for wheat, and the supply of dollars and the demand for dollars.

The exchange value of money for labor could not be better exemplified than to recall that in the days of Christ 1 penny paid for a day's labor in the vineyard. A day's labor in the vineyard now has the same value as then, but not the same exchange value in pennies. The exchange value for a day's labor then was 1 penny. It is now 300 pennies or more. The reason is perfectly plain; pennies are now 300 times as numerous as they were then. A day's labor buys more pennies because the pennies are 300 times as numerous and the penny now buys only one three-hundredth part of what it bought then. The purchasing power of the penny depended upon the number and supply of pennies.

THE FUNCTION OF MONEY AS A STORAGE OF VALUE

Money in terms of monetary units of account is also a storage of value. A farmer sells his cattle for $2,000 and receives for the $2,000 a demand deposit. This is a storage of value in lieu of the cattle which he had sold.

He sells his demand bank deposit to the banker for a time deposit on which he receives an annual interest. This money is a storage of

value and an investment. He may transfer his time deposit into a savings account, on which he receives interest at stated intervals. This money also becomes a storage of value. Or he may invest his demand bank deposit by buying the bonds of the United States or of an industrial corporation. The bonds would be an investment and a storage of value in terms of money.

A man may convert his check into legal-tender currency and hold the currency as a storage of value for future use. It often happens in periods of depression that citizens hoard currency as a storage of value and take it out of circulation as a current medium of exchange. Citizens convert stocks and bonds into demand deposits on a large scale in a depression and hold these demand deposits as a storage of value for future investment or use. Such demand deposits, thus withdrawn from circulation, constitute a storage of value but do not circulate as a medium of exchange.

In this manner the amount of money circulating as a medium of exchange may be diminished by hoarding demand deposits and may be increased by returning demand deposits to active use for the transaction of current business.

Chapter V

CURRENCY AS MONEY

The currency of the United States in circulation outside of the Treasury is used as a medium of exchange only when actively employed by an individual as a medium of exchange. The currency of a country which is held by the banks as a means of paying checks in legal-tender money is not in active circulation until it actually passes into the hands of the citizen, who transfers if from one hand to another. If the citizen withdraws from the bank a thousand dollars in currency and puts it in a locked box, it is withdrawn from circulation as a medium of exchange.

In the first quarter of 1933 an extraordinary demand arose for currency. It was satisfied by the issuance of about $2,000,000,000 of Federal Reserve notes, which passed into the hands of the banks and from the banks into the hands of the citizens who had called for it in payment of their demand bank deposits. A very large part of this currency was hoarded by the depositors who withdrew it from the banks. When their fears were allayed, almost all of this money returned to the Federal Reserve banks from which it came.

During the depression of 1929–32 the hoarding of currency by the citizens of cash and deposits and the contraction of check money by the bank was so great that nearly a thousand cities and communities established barter exchanges and/or issued scrip money in large volume. Detroit issued about $40,000,000; Flint, $118,000; Grand Rapids, $840,000; Lansing, $40,000; Milwaukee, over $12,000,000; Dayton, $750,000; Atlantic City, upward of $5,500,000; Paterson, N. J., over $2,000,000; Knoxville, more than $3,500,000; Birmingham, over $1,000,000; and Atlanta, about $6,000,000. All this scrip money was later retired.

Another substitute for currency has been the issuance of clearing-house certificates. During the depression of 1929–32, over $600,000,000 of clearing-house certificates were authorized, although only partially used.

A great many citizens of small means do not keep bank accounts but keep only a hoard of currency.

The currency held by stores and business houses as a means of making change for customers does not function as a circulating medium of exchange but only as a means of changing larger bills into smaller bills for the convenience of the customer. As there are about fifteen hundred thousand stores and shops in the United States, the amount of such money held for change out of circulation as a medium of exchange goes into very large figures, probably exceeding the amount held by the banks.

Of the total of the $6,000,000,000 of currency outside of the Treasury in circulation, it is probable that not more than a half of it circulates as a medium of exchange. People who need money as currency draw it from the banks on checks, pay it out for services and commodities, and it passes into the hands of the merchants in exchange for goods, and by the merchant is redeposited in the bank. In the event that the banks need additional currency, they have over $6,000,000,000 of reserves in the Federal Reserve banks which they can convert into currency on demand, or they can negotiate loans with the Reserve banks, against adequate security, and obtain from the Federal Reserve banks, without cost, Federal Reserve notes as currency.

The currency of the United States is printed in Washington at the Bureau of Engraving and Printing under great safeguards. The fractional coin of the United States is minted at the various mints of the Government and distributed through the Reserve banks to member banks, or directly to member banks, upon demand. The paper currency is printed on the finest quality of paper with silk thread running through and with the finest engraving humanly possible so as to prevent counterfeiting. When these notes become soiled or mutilated, they are returned to the Treasury, destroyed under proper safeguards, and replaced by fresh clean notes. The following table shows the amount of present outstanding currency:

TABLE I.—*Paper currency, by denominations, and coin in circulation*

[Outside Treasury and Federal Reserve banks. In millions of dollars]

End of month	Total in circulation [1]	Coin and small denomination currency [2]						
		Total	Coin	$1 [3]	$2	$5	$10	$20
1937:								
July	6,460	4,942	523	488	33	894	1,550	1,454
August	6,524	5,007	529	498	33	907	1,574	1,466
September	6,542	5,019	534	503	33	908	1,574	1,467
October	6,555	5,029	535	502	33	909	1,576	1,474
November	6,561	5,043	540	504	33	912	1,574	1,480
December	6,550	5,015	537	505	33	905	1,560	1,475
1938:								
January	6,320	4,789	522	474	31	856	1,482	1,424
February	6,334	4,798	520	473	32	863	1,489	1,421
March	6,355	4,784	521	473	31	860	1,487	1,412
April	6,397	4,807	522	476	31	866	1,498	1,414
May	6,467	4,856	526	487	32	877	1,512	1,422
June	6,461	4,837	527	481	31	875	1,503	1,420
July	6,452	4,836	526	481	31	879	1,508	1,410

[1] Total of amounts of coin and paper currency shown by denominations less unassorted currency in Treasury and Federal Reserve banks.

[2] Includes unassorted currency held in Treasury and Federal Reserve banks and currency of unknown denominations reported by the Treasury as destroyed.

[3] Paper currency only; $1 silver coins reported under coin.

TABLE I.—*Paper currency, by denominations, and coin in circulation*—Continued

End of month	Large denomination currency [1]							Unassorted [1]
	Total	$50	$100	$500	$1,000	$5,000	$10,000	
1937:								
July	1,520	381	697	137	283	7	15	2
August	1,520	382	698	137	283	7	14	4
September	1,527	382	702	138	285	7	14	4
October	1,531	384	704	138	286	6	13	5
November	1,525	381	701	136	287	5	14	6
December	1,542	387	710	139	288	6	12	7
1938:								
January	1,532	382	705	138	288	7	12	1
February	1,538	382	708	138	291	7	13	2
March	1,573	385	718	144	300	9	18	3
April	1,593	388	725	146	304	12	18	3
May	1,616	389	727	152	307	17	24	4
June	1,627	391	732	152	309	17	25	2
July	1,618	388	727	152	307	17	27	2

[1] Includes unassorted currency held in Treasury and Federal Reserve banks and currency of unknown denominations reported by the Treasury as destroyed.

Back figures: See Annual Report for 1937 (table 36).
Source: Board of Governors of the Federal Reserve System.

MODERN CHECK MONEY, OR BANK CREDIT

Within the last half century there has taken place a great expansion in the development of bank credit and bank check money. The number of banks had greatly increased until 1921. Since then about half the number have failed or closed their doors. The fluctuation in the number of National and State banks for the years 1914 to 1935, is as follows:

TABLE II.—*National and State banks*

Year	Number of national banks (June 30 or nearest date)	Number of State banks (June 30 or nearest date)	Total number of banks (June 30 or nearest date)
1914	7,514	18,760	26,274
1915	7,597	19,008	26,605
1916	7,571	19,470	27,041
1917	7,599	19,896	27,495
1918	7,699	20,635	28,334
1919	7,779	20,821	28,600
1920	8,024	21,805	29,829
1921	8,150	22,410	30,560
1922	8,244	21,914	30,158
1923	8,236	21,597	29,833
1924	8,080	20,916	28,996
1925	8,066	20,413	28,479
1926	7,972	19,882	27,854
1927	7,790	18,975	26,765
1928	7,685	18,256	25,941
1929	7,530	17,580	25,110
1930	7,247	16,605	23,852
1931	6,800	15,103	21,903
1932	6,145	12,901	19,046
1933	4,897	9,622	14,519
1934	5,417	10,418	15,835
1935	5,425	10,569	15,994

Source: Board of Governors of the Federal Reserve System.

The failure of the Congress of the United States to create the money required by the people for the transaction of a greatly expanding volume of business naturally caused the people to resort to the manufacture of money through the banks by loans.

The system of handling money through checks was so cheap and convenient that the people expanded this system to meet requirements. The people were compelled, of course, to pay for such accommodation, or creation of credit, by the banks.

Six-percent interest was established in most States as a legal rate of interest for loans. Sometimes, particularly in the Western States, the rates went higher. Sometimes, as in contracts, higher rates than the legal rate were allowed under special sections of the statute.

Thus, the credit money built up by this checking system was based on debt, subject to interest and compound interest. This made the system hazardous because of the fears of the changing value of the security upon which the loans of money were based when borrowers were compelled to liquidate by forced sales, whether voluntary or involuntary.

When the banks call their loans they destroy the money supply by canceling the demand deposits. They thus increase the purchasing power of money in terms of stocks, property, and commodities. Thus the banks impair and diminish the value of their own securities and impair the solvency of their own borrowers, thereby bringing ruin upon themselves and upon the industry and commerce of the country.

Every bank seeks its own safety. There is no cooperation or control of the money supply through the banks. Their policy of fear, and the consequences of fear, can only be neutralized by the powers of the Government, which has no fear and can expand the money supply when the banks, because of fear, contract it to their own ruin.

HOW THIS MODERN CHECK MONEY IS CREATED

In the eighteenth century when the Bank of Amsterdam was founded it took deposits in the form of gold and gave receipts against the gold on deposit. Its operators found that the receipts served a better purpose than the gold itself. Under their system the gold was in a vault thoroughly protected against robbery and the receipts were personal receipts transferable. These receipts functioned as money. So long as the bank followed the system of issuing receipts only against gold on deposit, its receipts circulated as freely as gold itself.

In the beginning the operators of the bank never thought of issuing receipts against gold which they did not have, but as years went by and the depositors very rarely called for the gold and were content to circulate the receipts in place of the gold, the bank arrived at the conclusion that they would be safe issuing other receipts not covered by gold but covered by mortgages and property which they thought might be convertible, if necessary, into gold.

When at last it was discovered that the outstanding receipts of the bank very greatly exceeded the amount of gold the bank held, it resulted in the destruction of the bank by a flood of demands for gold that the bank could not supply.

In the United States the banks were permitted, on an average, prior to the Bank Act of 1935, to make loans to an extent of 10 times as great as the currency which they had available in vault or as reserves held for them by other banks. As a consequence the banks made loans against mortgages on cattle and horses, houses, the hypothecation of stocks, goods, and on other assets deemed to be sound bankable assets. But usually the bank took security in excess of the amount of the loan.

A citizen needing money for feeding a carload of cattle would give his note to the bank, secured by cattle in excess of the value of the note, and in excess of the corn necessary to feed the cattle. When the cattle were sold, the note would be paid with its interest and the borrower would retain the balance of the proceeds as his profit.

A borrower might put up as security certificates of stock in some corporation of which the banker knew.

Whatever the security, the prime object of the banker was to make a loan that was safe, that would pay him the legal rate of interest, and that would be paid at a fixed period of time.

Mr. John Smith wanted a thousand dollars against security. Mr. Smith would give his note for 90 days, bearing 6-percent interest, with the security attached. And the banker would thereupon enter on the books of the bank a credit to John Smith, precisely as if John Smith had paid into the bank that amount in gold dollars, or in legal-tender notes.

The banker and John Smith combined in this way to create a demand bank deposit subject to check.

When John Smith made this contract with the bank, the bank agreed to pay his checks on demand in legal tender to the extent of the loan. Here was the manufacture of money in the form of a demand bank deposit by John Smith and the bank. Thus public and private assets were monetized by the bank.

Not only was money thus created by the bank and its depositors, but the money supply of the country was contracted when the loan was paid off.

When John Smith sold his cattle for somebody else's money, he received a check from the buyer of the cattle on a bank. He delivered the check to his banker and was given credit for it. He then paid the loans he had made, with interest, out of the demand deposit created by the check received for the cattle he had sold. Thus John Smith canceled the amount of money he had previously received and also transferred to the banker the interest on his loan. This interest was taken out of the demand deposit and transferred to the bank as a profit. Such money, as profit, withdrawn from the demand bank deposits, was a further cancelation of demand deposits, and a transfer of such demand deposits to the banker as an investment, and became a part of his undivided profits or capital.

It matters not how many times you multiply this transaction. The principles involved are the same. The bank and the borrower create money in the form of demand bank deposits subject to check. They destroy the demand deposits thus created when the loan is paid. The banks, therefore, through this process expand money and contract money.

When a bank buys $1,000 of Government bonds, it creates $1,000 of demand deposits to pay for the bonds, which the Government puts

into circulation by spending. This is an increase of the money supply.

When the banks sell the $1,000 of bonds to their own depositors, $1,000 of demand deposits is transferred from the depositors to the banks as a cash asset which the banks can then lend to their customers at 6 percent without expanding their deposits any further.

This means that the banks can buy a 3 percent Government bond, sell the bond to demand bank depositors and loan the money received at 6 percent to other customers. This asset then reappears under the head of loans. It first appeared as an investment in bonds. Then it retired a like amount of demand deposits by adding such deposits to the assets of the banks in so-called cash on hand. That cash, when loaned, reappeared under the head of loans. Thus the net effect is to transfer a loan to the Government into a loan to citizens at a higher rate of interest.

It is in this manner that credit is rendered more unstable, because when the banks become frightened, they call the loans of the citizen, whereas, if they had kept the Government bonds, they would not recall the loan to the Government.

When the Government sells baby bonds on a large scale to the people it has the effect of drying up the circulating medium, in the form of demand bank deposits, by converting such small individual demand deposits into individual investments in a nonliquid security. It becomes a savings account in lieu of liquid money available as a medium of exchange.

It is of importance for students to notice the manner in which this is done. It illustrates the manner in which money created can be immediately retired or canceled.

THE RELATIVE VOLUME OF CURRENCY AND CHECK MONEY

It is of importance to observe the relative volume of currency, outside of the Treasury in circulation, and the volume of check money in circulation.

The total amount of currency outside of the Treasury for each year from the years 1926 to 1936 is as follows:

Total currency in circulation

	Currency [1]		*Currency* [1]
1926	4.6	1932	5.4
1927	4.6	1933	5.4
1928	4.5	1934	5.4
1929	4.5	1935	5.6
1930	4.2	1936	6.2
1931	4.5		

[1] Indicates billions and decimals thereof.

Source: Board of Governors of the Federal Reserve System.

The volume of currency, as heretofore pointed out, in actual circulation by the people as pocket money, probably does not exceed one-half of the total amount outside of the Treasury.

So that $3,000,000,000 is probably a maximum estimate at present of the currency in actual circulation as pocket money, including that which is hoarded. This money is largely received for wages and salaries, being paid daily, weekly, and monthly. It has been

estimated that there is an average turn-over of about 26 times per annum for currency. It is estimated, on the other hand, that the turn-over of check money is normally much more rapid. The total volume of such check money for the years 1926 to date, and the total demand deposits as of June 30 for each of these years, will indicate the relative speed of the turn-over on the average:

Average turnover of demand deposits

Year	Volume of demand deposits[1]	Volume of check money [1]	Average turn-over	Year	Volume of demand deposits[1]	Volume of check money [1]	Average turn-over
1926	21.6	845	39	1933	14.4	430	29
1927	22.2	920	41	1934	16.6	470	29
1928	22.3	1,074	48	1935	20.5	530	25
1929	22.6	1,230	54	1936	23.8	611	25
1930	21.8	900	41	1937	25.2	637	25
1931	19.9	660	33	1938	24.3	[2] 550	23
1932	15.6	450	28				

[1] Indicates billions and decimals thereof.
[2] Preliminary.

Source: Board of Governors of the Federal Reserve System.

It must be remembered, however, that in periods of depression a large part of the demand bank deposits are hoarded for future investment. Therefore, the turn-over of the entire demand deposits at such a time is a theoretical fiction. It is probable that at the present time, when the check turn-over is estimated at a total annual volume of $530,000,000,000 that less than $11,000,000,000 is so employed, and that this $11,000,000,000 has an actual turnover of 50 times per annum.

The total volume of money employed as a medium of exchange consists of credit and currency. It was for this reason that those who wished to increase the purchasing power of money and diminish the price of the products and services of labor, conducted an open campaign in 1920 by declaring their purpose to make a "persistent attack on the high cost of living by the courageous and intelligent deflation of overexpanded credit and currency." Their conception was that if the dollar could buy more it would be better for the people who had dollars to spend. They were convinced that by the contraction of credit and currency the dollar would increase in purchasing power.

This economic theory was completely demonstrated by what took place. The Federal Reserve banks and the member banks contracted credit and currency on a large scale, with the result that the price level, representing the volume of money employed in the purchase of commodities in the wholesale markets, fell from an index in May 1920 of 167 to 93 by June 1921. The index of the purchasing power of the dollar, which is always in inverse ratio to the price level, or all-commodity index, steadily rose from 60 in May 1920, to 107 in June 1921. Naturally, as the volume of credit and currency contracts, the purchasing power of the dollar would rise because of the scarcity created in dollars. It was merely a proof of the well-established axiom that the exchange value of anything depends upon the law of supply and demand.

The volume of currency in circulation outside of the Treasury is naturally, as a matter of statistics, comparatively uniform, only

increasing to the extent of an increasing demand by a growing population. Occasionally there arises an extraordinary demand for currency, such as in the first quarter of 1933. With the failure of many banks, there was a sudden expansion of Federal Reserve notes due to the demand for currency by frightened bank depositors. At this time the currency suddenly increased about $2,000,000,000. It afterward returned, in large part, to the Federal Reserve banks when the fear of depositors had ceased, because of the insurance of bank deposits.

In 1932, as heretofore stated, the people protected themselves against the hoarding of currency by manufacturing scrip money, which was not authorized by law, but which served as a substitute for currency.

Check money, or bank credit in the form of demand bank deposits, goes through great fluctuations, depending upon the condition of credit in the banks. An illustration of these violent changes is best demonstrated by the estimate of the volume of check money employed from 1926 to 1938.

In comparison with the amount of currency in circulation outside of the Treasury, the following table presents the volume of check money employed from 1926 to 1938.

Relative volume of currency and check money

Year	Checks [1]	Currency [1]	Year	Checks [1]	Currency [1]
1926	845	4.6	1933	430	5.4
1927	920	4.6	1934	470	5.4
1928	1,074	4.5	1935	530	5.6
1929	1,230	4.5	1936	611	6.2
1930	900	4.2	1937	637	6.5
1931	660	4.5	1938	530	6.8
1932	450	5.4			

[1] Indicates billions and decimals thereof.

Source: Board of Governors of the Federal Reserve System.

A portion of this currency in the pockets of the people also has a turn-over amounting to possibly 26 times per annum.

Chapter VI

THE NECESSITY FOR STABLE MONEY

The necessity for stable money has long been recognized as of supreme importance in giving stability to the value of labor and property and establishing justice between debtor and creditor.

Since money is a measure of value, obviously, to change this measure (the purchasing power of the dollar) would mean that there would be no stability in the measure of the value due to a creditor by a debtor. The creditor is entitled to be repaid in a dollar of the same purchasing power that he loaned and no more. And the debtor should not be required to pay his debt in a dollar of greater purchasing power than the dollar he borrowed.

When the Government issued its bonds for the prosecution of the World War and the purchasing power of the dollar fell to an index of 60 in May 1920, such bonds ought not in justice to be required to be liquidated in dollars whose purchasing power is an index of 130,

as in December 1938. This truth is thoroughly well understood by all informed economists, but the difficulty in accomplishing the objective of a money which shall have a uniform, debt-paying, purchasing power from one generation to another has been a lack of informed public opinion.

There has been a failure on the part of the orthodox economist, who relies upon tradition, to realize the part played in the measuring power of money by the modern substitute for currency, check money.

The Stable Money Association has been under the leadership of some of the greatest leaders in finance and industry. For example, Owen D. Young, chairman, General Electric Co.; M. C. Rorty, vice-president, International Telephone & Telegraph Co.; Henry A. Wallace, Secretary of Agriculture; Bernard M. Baruch, financier; John J. Raskob, former chairman, Democratic National Committee; Alfred P. Sloan, Jr., president, General Motors; John W. Davis, former Democratic candidate for President; Elihu Root, former Secretary of State and of War; Nicholas Murray Butler, president, Columbia University; Otto H. Kahn, president, Kuhn, Loeb, & Co.; Matthew Woll, president, Union Labor Life Insurance Co.; Irving Fisher, professor emeritus of economics, Yale; Charles Evans Hughes, Chief Justice, United States Supreme Court; John L. Lewis, president, United Mine Workers of America; Louis J. Taber, national master, National Grange; Gurney E. Newlin, president, American Bar Association.

A more complete list of these men will be found in the appendix.

THE EVILS OF UNSTABLE MONEY

When a farmer borrows 100 bushels of wheat, he can repay it with 100 bushels of wheat. But if he borrows $100, he might easily find himself compelled to sell twice as many bushels of wheat with which to obtain the $100 for the repayment of the debt.

There have been 27 distinct periods in the history of the United States during which a serious change took place in the purchasing power of money, always due to the increase or decrease of the volume of money. The most violent example perhaps in recent years was what took place in 1921 and in 1929–32.

The following table shows some of the effects on a selected group of the more prominent farm commodities of the expansion and contraction of the purchasing power of money.

Index numbers of wholesale prices for cotton, corn, wheat, and composite group of all farm products for selected periods

[1926=100]

Date	Cotton, Middling, per pound, New York	Corn, contract grades, per bushel, Chicago	Wheat, No. 2 Red Winter, per bushel, Chicago	Group of all farm produce
May 1920	235.8	262.9	192.8	169.8
September 1920	171.5	173.3	161.6	143.9
January 1921	95.3	89.9	127.2	101.6
May 1921	73.8	81.2	101.7	83.1
July 1921	70.5	80.9	79.7	86.5
July 1929	106.0	131.1	86.5	107.6
December 1929	98.6	118.6	84.3	101.9
July 1930	75.1	107.2	57.7	83.1
Average for year 1936	69.1	111.2	71.1	80.9
Low of 1932	[1] 30.1	[2] 30.5	[3] 29.9	[2] 44.1

[1] June. [2] December. [3] November and December.

Source: Bureau of Labor Statistics.

Under these conditions the farmers of the country have universally suffered and millions of them have been bankrupted.

The fluctuation in the purchasing power of money, however, has been much greater in the security exchanges, where prices are not only affected by the abundance and scarcity of money, but also by the scarcity and abundance of stocks for sale. In 1929 the common and preferred stocks listed on the New York Stock exchange reached a high market price of $89,000,000,000. By June 1932, they had fallen to a low of $12,000,000,000. This demonstrates that the purchasing power of the dollar in the stock market increased over 600 percent because of the scarcity of money, or bank credit, and the super-abundance of stocks for sale at the bottom of a depression.

The same thing is manifest in the real estate market, particularly on real estate which has no income-producing value but which is held merely for investment. Here the change is often very great. The dollar will sometimes buy vacant real estate in the towns for the taxes and will buy uncultivated lands for one-fifth to one-tenth of its previous market price.

So, we see that the evils of a fluctuation in the way of an expansion or a contraction manifest themselves in all of the products of human labor and other forms of property. But the evil is far worse when money rises in value because of scarcity, because it then results, as at present, in 10 or 12 million people being thrown out of work and unable to sell their labor at any price, and who are compelled to rely upon their savings, or upon public relief and private charity and who suffer from being underfed, underclothed, and undersheltered.

Such periods of severe change in the value of money result not only in the unemployment of millions of people, but it has the effect of lowering the health and morale of the people by millions and causing them to resort to criminal acts as a means of affording themselves temporary relief.

The consequences, broadly, of the change in the purchasing power of money will be more clearly seen from the monetary table for the years 1913 to 1936. (See appendix.)

For a much more detailed description of the harm that money does to the economy of a country, read The Money Illusion by Irving Fisher professor emeritus of economics at Yale University.

THE NATURAL INSTABILITY OF OUR PRESENT-DAY CHECK MONEY

Our present check money is by its own nature unstable, as money, because the volume is not under any control.

Our modern check money is created by debt. When a man borrows $1,000 from the bank, he creates a debt with the bank.

In this manner a thousand dollars of money in the form of a demand bank deposit is created, as has been explained. Until this debt is paid this deposit circulates as money, being transferred from one depositor to another depositor. It is immaterial if a person receiving a check on this deposit puts the check with another bank. That would merely be transferring the money from one bank to another bank. The money, as a demand bank deposit, continues to circulate until the debt is paid.

On June 30, 1929, the banks had $41,600,000,000 of such loans outstanding.

In addition to private loans thus made by the banks, they also create money when they buy the bonds of the United States Government, or of any State, county, city, or corporation in the United States.

When the banks contracted their loans of $41,600,000,000 by June 30, 1932, to some $20,000,000,000, they contracted the money supply correspondingly; so that the demand bank deposits and the time deposits of the banks fell in 3 years, from June 30, 1929, to June 30, 1932, by approximately the same amount. Demand bank deposits therefore fell from $24,000,000,000 to about $14,000,000,000, and the time deposits were diminished by about $10,000,000,000, the time deposits being transferred to the banker as demand deposits, and then the demand deposits were employed to pay the debts to the banks. In this manner, many thousands of banks, moved by fear, caused a shrinkage in demand bank deposits and time deposits of $20,000,000,000. This caused the shrinkage of the volume of check money from $1,230,000,000,000 in 1929 to $450,000,000,000 in 1932, and caused, at the same time, the increased purchasing power of money and the decreased exchange value of property, causing universal bankruptcy.

It should be clear, therefore, that when the money supply is based upon loans made by privately owned banks and is subject to undue expansion through overoptimism, or to undue contraction through pessimism, such money is, by its nature, unstable and dangerous to the welfare of all of the people—not only the poor, but also often ruinous to the rich.

Money being also created by the Government through the sale of its bonds, and by States, counties, cities, and corporations, the volume of money is affected by such debts and is made by nature unstable. This unstability will last until the powers of the Government are used to render money stable by exercising the constitutional power and duty of the United States exclusively to create the money which the people need as a medium of exchange and to regulate the volume and value.

It is known that under comparatively stable money, the national production increases at the rate of 4 percent per annum, and except for these depressions we should now have a normal production of over 50 percent more than it was in 1926. But the decrease which actually took place during the last panic of 1929–32 amounts to a net loss of $164,000,000,000 in the national income without counting the loss of the 4-percent increase we should have had.

THE MONEY ILLUSION

People have a general illusion that money is stable and that property is unstable because it rises and falls in price; whereas, it is money which falls and rises in purchasing power because of scarcity or abundance. They do not realize that when all commodities and all forms of property fall in value, it is not because the intrinsic value of these properties and commodities change, but because the money, with which they are all measured, changes in volume and becomes scarcer or more abundant.

When the commodities in the wholesale markets in 1933 required 40 percent less money to be bought than in 1929, it was because the

money supply was contracted. Since money measures everything, the scarcity of money causes the value of everything to fall. When the money supply is more abundant, or doubles, and the volume of commodities is unchanged, the exchange value in money of all commodities and properties doubles.

While this truth is recognized by all informed students, nevertheless the illusion persists with a great body of the people that it is not the money that changes in value but the property.

Only an informed public opinion can change this erroneous thinking. It takes time to overcome such a world-wide error. It took many decades for the people of the world to learn that the sun did not revolve around the world, but that the world turned on its own axis and revolved around the sun.

Chapter VII

THE ORTHODOX TRADITIONAL THEORY OF MONEY

Prior to the twentieth century it was the traditional theory of money, held by orthodox professors of political economy, that gold was money provided by Nature and that nothing else was money. This opinion was expressed very clearly by the great financier, J. P. Morgan, in December 1912, in answering a question of Samuel Untermyer during the Pujo investigation. Mr. Morgan said, "Gold is money and nothing else is."

It was believed that gold, because of its stable volume, was a more stable measure of value than anything known to the human race. There was always a demand for it because of its beauty, malleability, ductility, resistance to corrosion, handy size in relation to value, etc. It was, therefore, a convenient measure of value. It was authorized to be stamped by the Congress of the United States in 1792 as United States money, and it continued to serve as legal tender by weight until 1934.

It was purchased by the Treasury at a fixed value by weight when minted. On March 14, 1900, the Gold Standard Act was passed, declaring the dollar to be 25.8 troy grains, nine-tenths fine.

Gold was used domestically by nearly all the leading nations of the world prior to the World War and is still used as a basis of international exchange.

It was the orthodox theory, therefore, that gold had been made by law the standard measure of value and that currency, which was redeemable in gold, and silver certificates convertible into gold, and fractional coins made legal tender by statute in limited amounts, comprised money in the United States and no substitute for money, such as a check, could properly be called money. Upon this premise, that money consisted of legalized currency and nothing else, the orthodox traditional economists pointed out with justice that such money (statutory currency) did not fluctuate in such an amount as to account for the violent changes which took place in the market price of commodities and of stocks on the security exchanges.

In 1933 the Congress passed an act making all currency legal tender, later retiring the national bank notes as money and demonetizing gold in domestic circulation.

Upon the premise that gold and legalized currency alone constituted money, the orthodox economist denied the quantitative theory

which holds that the purchasing power of money is determined by its volume. They held that the overproduction of goods caused the violent fluctuations in the market price of commodities. They held that gambling on the stock markets accounted for the change in the prices of securities. They held that the lack of public confidence caused the changes in market prices.

There are many other theories, more or less fanciful, urged by other economists which have been quite adequately answered by Prof. Irving Fisher in his book Booms and Depressions. It is sufficient for this exposition to state that the orthodox theory denies the quantitative theory of money on the premise that nothing is money except gold, or currency redeemable in gold.

Economists holding this view have therefore insisted on a return to the gold standard of 1900, and have denounced the demonetization of gold in domestic circulation, and the act of Congress making unlawful contracts payable in dollars of a standard weight of gold, and providing that all such contracts can be liquidated in lawful money.

Students should remember that money is anything which by conventional use is employed as a medium of exchange and measure of value, and that a recognition of this truth completely solves the question of what makes the value of money. A knowledge of the meaning of money therefore enables the student to demonstrate that money is subject to the everlasting law of supply and demand and that its value always depends upon the supply of money in relation to the demand for money.

THE QUANTITATIVE THEORY OF MONEY

The quantitative theory of money is simply that the value of money depends upon the supply of, and demand for, money.

The colossal demand for money is well known. It takes $12,000,000,000 per annum to pay the interest charges on borrowed money. It takes $14,000,000,000 of money to pay the taxes of the United States, the States, and their subdivisions. It took $845,000,000,000 of check money to meet the requirements of the American people in 1926, and if their growth had been normal from that time to this, it would have required approximately an increase of probably 4 percent per annum. This increase is estimated variously as from 3 to 5 percent in America, yet in Great Britain, under managed money, Sir Reginald McKenna reported in February 1938 that the increase of the industrial production of Great Britain had been 50 percent in 5 years.

The supply of money in the United States, based upon debt, has suffered violent fluctuations, as heretofore set forth. At the present time, December 1938, the volume of check money is estimated to be at the rate of $530,000,000,000 per annum. This is far less than half of what it was in 1929.

Modern students of monetary science now know with certainty that the value of money depends upon the supply of money in relation to the demand for money. Gustav Cassel, professor of political economy at the University of Stockholm, in his lectures on Post War Monetary Stabilization before the University of Columbia and the University of Chicago, sets forth these correct principles. His lectures are published in book form by the Columbia University Press.

The value of a currency is essentially determined by the scarcity in the supply of means of payment (p. 64).

It took many years of hard work to get people to understand that the only thing that has real importance for the value of a currency is the total supply of the means of payment (p. 3).

The gold standard is nothing else than a paper standard, the value of which is entirely dependent upon the way in which the supply of the means of payment is regulated (p. 4).

The purchasing power of money is exclusively dependent on the scarcity in the supply of the means of payment (p. 42).

The value of money cannot possibly be dependent on anything but the supply of money in relation to the demand for money (pp. 91–92).

Cassel uses the term "means of payment" to include currency and checks.

To illustrate these truths, Professor Cassel quotes the experience of the leading European nations. France, for example, increased the volume of the French franc five times, with the result that the purchasing power of the franc fell to one-fifth of what it had been.

Italy expanded the lira four times, with the result that the lira fell in purchasing power to one-fourth of what it had been.

Our own experience in the United States has completely demonstrated the truth of the quantitative theory.

The supply of money, as a medium of exchange, consists only of the volume of money so employed, and does not consist of currency hoarded, or currency in the tills of banks and business houses; or of demand deposits which are hoarded and held inactive and dormant as reserves, or for future investment. This must be remembered in applying the quantitative theory.

Chapter VIII

THE DOLLAR INDEX AND THE PRICE LEVEL

For 40 years the Department of Labor has been endeavoring to establish the dollar index to show the relative purchasing power of the dollar in the primary wholesale markets. To accomplish this, they selected 784 commodities in 1926 and established the volume of each commodity for the years 1923 and 1925, taking the mean average of these 2 years. This fixed volume of each commodity has remained substantially unchanged up to this date (1938).

In 1926 the average price of each commodity was ascertained by taking the weekly market price for 52 weeks, adding up the numbers and dividing by 52, thus getting the average price for the year 1926 of the individual commodity. This average market price for each commodity was multiplied by the units in the fixed volume of such commodity on the mean average of 1923 and 1925. Thus was ascertained the total amount of dollars received for the fixed volume of such commodity when multiplied by the average price for the year 1926. Thus was ascertained the number of dollars required to buy the fixed volume of such commodity. The products in dollars for each of the 784 commodities were then added up. It was found, by this process, that the total volume of dollars required to buy the total fixed volume of the 784 commodities was 54.7 billion dollars.

The Department then declared this volume of dollars to represent the volume of money required to buy the volume of commodities listed. And for purposes of comparison with future years used an

index of 100 to represent the price level of 1926 and the index of the purchasing power of money in the wholesale markets for 1926. Obviously, following the same methods of calculation for 1927, when it was ascertained that the total volume of money required to buy the fixed volume of commodities was 6 percent less than 54.7 billion dollars, the index of the price level would fall 6 percent, and the dollar index would rise 6 percent. This would demonstrate that the purchasing power of money in relation to commodities sold in the wholesale markets had increased 6 percent in relation to a fixed volume of the commodities.

The dollar index and the price-level index were exclusively concerned with the actual purchasing power of money in the primary wholesale markets. They did not concern themselves with the causes of the changes in the selling price of commodities. These indexes dealt merely with the question of price, regardless of the cause of the price.

The dollar index and the price-level index were always in inverse ratio to each other. When the volume of money required to buy the fixed volume of commodities was ascertained, a comparison was made with this volume of money and the $54,700,000,000. In that way the index of the price level was obtained. When the index of the price level was obtained, such as 94 in 1927, the index of the purchasing power of money was ascertained by dividing 10,000 by 94 which gave the purchasing power of the dollar in the wholesale markets at 106.

It was found for the year 1929 that the amount of money received for the fixed volume of commodities was 5 percent less than the amount of money received in 1926 for the same volume of commodities. Therefore, the index of the price level was 95 and the dollar index was 105.

In May 1938 it was found that the amount of money required to buy the fixed volume of commodities was 78 percent of $54,700,000,000 and the dollar index was 128, showing that the dollars were buying 28 percent more of the fixed volume of goods than in 1926.

Since it took only 78 percent of the money required in 1926 to buy the same fixed volume of goods, it not only showed the increased purchasing power of money in the purchase of such goods, but another very important factor had entered into the question of the purchasing power of money, so arrived at.

HOW PRICES ARE INFLUENCED

The prices in the wholesale primary markets are not only influenced by the volume of money but are similarly influenced by the volume of commodities. The dollar index and the price-level index pay no attention whatever to the factor of the volume of commodities. The volume of commodities, with the rise and fall in the volume of commodities, is shown by an entirely different index—the index of industrial production, which shows the increase or decrease in the volume of products (elsewhere explained).

If the volume of products should decrease 25 percent (the money supply unchanging) the market price of such commodities would increase by an inverse ratio of 33 percent.[2]

[2] For the reason that since three-fourths of the volume would increase one-third in price, the increase of one-third in price would raise the number of dollars to the same volume, or up to 100 percent of normal, assuming the money supply available had not changed.

It would require 54.7 billion dollars to purchase three-fourths of the volume having an increased average price of one-third. But the actual index of the price level would show a rise of 33⅓ percent and the dollar index would be 75. The two multiplied together would make 10,000.

In other words, the purchasing power of money in terms of such commodities would fall 25 percent and the index of the average commodity price would rise 33⅓ percent.

If, however, with a decrease of 25 percent in the commodities, there was a decrease of 25 percent in the volume of money, the purchasing power of money would remain unchanged in terms of commodities, because the volume of commodities and the volume of money fell in the same ratio. If the volume of commodities increased 50 percent and the volume of money increased 50 percent, there would be no change in the price level or the dollar index, as the dollars would buy the same volume of commodities as before.

If, therefore, the volume of commodities increased 5, 10, or 15 percent, the volume of money should increase 5, 10, or 15 percent in order to preserve a dollar of the same purchasing power in terms of commodities.

In 1929 the index of industrial production rose on an average of 19 percent above the 1923–25 average, but the volume of money in the wholesale markets did not rise 19 percent. It rose less than 19 percent. If it had risen 19 percent, the price level and the dollar index would have remained at 100, but the price level fell 5 percent to 95 and the dollar index rose to 105, showing that the volume of money did not correspond with the increase in the volume of commodities. Therefore, the purchasing power of money increased 5 percent for the year 1929.

In May 1938 the price-level index was 78 and the dollar index 128, showing that the dollar was buying 28 percent more goods than in 1926, notwithstanding the vital fact that the index of industrial production in May 1938 was 76. In other words, the dollar was buying 28 percent more goods when the goods were nearly one-fourth less in volume. When the goods were diminished in volume to 76 percent of normal, the market price of such goods should have increased by inverse ratio, or 31½ percent more than normal. Since the goods by virtue of their scarcity were worth 31½ percent more than normal, it is obvious that the dollar was buying 28 percent more than normal at a time in 1938 when the goods were theoretically worth 31½ percent more than normal. In other words, the volume of money was buying 28 percent more in volume of goods worth theoretically 131½ in market value.

This is a substantial physical fact and can only be accounted for by a greater contraction in the money supply than would be superficially indicated by the price level of 78, or the dollar index of 128.

The actual volume of money available, therefore, in the wholesale markets in proportion to the goods was approximately 31 percent less than 78 percent of the normal, or a contraction of the money supply to a little over 50 percent of the normal supply of money in relation to the normal supply of commodities as fixed in the year 1926.

The dollar index, therefore, should be about 170, in terms of commodities to represent actual rise in purchasing power.

In 1929 the volume of check money debited was 1,230 billion dollars but in December 1938 it was approximately at the rate of 530 billion

dollars yearly, a contraction of the volume of check money in the United States of more than half. This confirms, by actual statistical facts, that there had been in the United States a contraction of check money by over half from 1929.

When the purchasing power of the dollar increased in terms of stocks over 600 percent from 1929 to 1933, it did not signify that the volume of money had fallen to one-sixth of what it was, because in that case, along with the shrinkage of check money to one-third, there came on the market a huge volume of stock certificates which distressed owners of such stock parted with either from fear of further fall, or from necessity, because such stocks had been bought with bank loans that could no longer be carried. The oversupply of stock certificates therefore, in the market had the effect of cheapening such stocks at a time when the contraction of the money supply expanded the purchasing power of money and further cheapened the stocks in terms of money.

The same principle applies in regard to real estate. When the depression came on, bankruptcies ensued, hundreds of thousands of shops were closed and offered for rental. The surplus of such shops and stores was available on the market in the depression when they were producing no income and were subject to actual loss through taxes, insurance, maintenance, etc.

The dollar index does not deal with these subjects which indicate the purchasing power of money in the fields of real estate and stocks. The dollar index concerns itself exclusively with prices in the primary wholesale markets on 784 commodities, used up to 1938. The number has been expanded to 813 since January 1, 1938. It is also true that in making up the price level and the dollar index, in lieu of the fixed volume of commodities established by the mean average of the years 1923–25, the Department of Labor took the mean average of the years 1929–31 as a new basis. The new basis, however, made no substantial difference in the volume of money required to buy the 784 commodities (now 813) because the index of industrial production was 119 in 1929 and 81 in 1931, making a mean average of 100, and producing therefore an average of about 55 billion dollars which is within a fraction of 1 percent of 54.7 billion dollars, used in 1923–25.

In considering, therefore, the subject of the dollar index and the price level index, it should be obvious that they clearly make manifest the extreme manner in which the volume of money available in commerce and industry has been contracted, and that the remedy must be found in expanding the money supply with intelligent care so as to restore the price-level index to par, and keep it at par by expanding the volume of money as the index of industrial production can be made to expand under a system of regulating the value of money by regulating the volume of money in circulation.

In May 1938, the index of industrial production fell to an extreme low point and rapidly rose to 90 by October. This index was seriously influenced by the expansion of money through the expenditure of the Government and the change of policy which went into effect in June 1938. Moreover, in April 1937, when the index of industrial production was 118, there were on hand substantial inventories which were gradually reduced by June 1938. The inventories being low at that time, production was stimulated by that circumstance. This should not be overlooked in considering this question.

THE ALLEGED "DISEQUILIBRIUM" OF WHOLESALE PRICES

The rise and fall of the commodities listed is normally and generally due to the rise and fall in the money supply. There are some commodities that escape this normal rule for the reason that commodities like copper, lead, steel, tin, and zinc are controlled by monopolies that can arbitrarily fix the price. Thus the price will not go down because of a shortage of money, nor will such commodities go up in price, necessarily, because of an expansion of money. But the expansion of money lays a foundation by which commodities controlled by monopolies not only can be raised in price correspondingly with the rise in other commodities, but it often happens, as in the case of copper and lead, that when business conditions substantially improve and the demand for building purposes requires a larger volume of copper and lead, the managers of the monopoly take advantage of the conditions to arbitrarily raise their prices far above the average rise of other commodities. In this way they have a tendency to discourage building and to slow down the processes of a more favorable market.

As elsewhere stated, the remedy for the arbitrary raising of the prices of commodities, such as copper, lead, tin, steel, and zinc, does not lie within the scope of monetary control, but the regulation of such unfair prices fixed upon the public must be left to the Congress when passing laws to regulate the monopolies and unfair practices by them, or practices against the public interest.

It has been urged by some economists that the depression of 1937–38 was due to the arbitrary raising of the price of copper and other monopoly products. But copper and the products of copper, taken as a whole, only comprise about 1 percent of the average values of the listed commodities on which the price level is based. The effect of an arbitrary rise in such commodities would be to arbitrarily increase, by an extremely small percentage, the price level without such an increase being based on an increase in the money supply. If the increase were due to an increase of the money supply, it would mean that the increase would be accompanied by an increase in the volume of production and employment, whereas the arbitrary increase has no such foundation. When the price of copper was raised business was active and continued to be active during January, February, March, April, and May and the index of industrial production rose until March and only began to fall as the marketing of securities progressed and the hoarding of the money received from the sale of such securities was carried on on a gradually increasing scale, until the crash occurred in September. This has been elsewhere fully explained.

In short, the so-called disequilibrium of prices is not a monetary problem, and even regardless of arbitrary fixed prices by monopoly, the disequilibrium (so-called) of wholesale prices is necessarily due to the larger or smaller supply of individual commodities in relation to the demand for such individual commodities. It is only the value of all of the listed commodities that indicates the changes in the purchasing power and in the supply of money.

THE VOLUME OF MONEY AND THE PRICE LEVEL

Under the law of supply and demand, the demand for money to pay for the 784 listed commodities manufactured in this country will depend upon the supply of money available in the wholesale commodity markets. The demand for money in the wholesale commodity markets is by no means the only demand for money. Money may be expanded in speculation in the security markets without necessarily affecting the money employed in normal trade in the commodity markets.

This took place in the years 1924 to 1930, inclusive, when there was a great expansion in the number of stock certificates sold to the American people. There were sold, and listed on the stock exchanges, over a billion shares in less than 10 years. The sales from 1922 to 1932 amounted to over $50,000,000,000. About $3,000,000,000 came from abroad for the purpose of buying stocks on the American security exchanges.

The total loans made to brokers on the New York Stock Exchange alone amounted to $8,600,000,000 by September 1929. The loans made in other security exchange markets amounted to about $3,000,000,000 more.

It had the effect on the New York Stock Exchange of raising the prices of common and preferred stock to a gross of $89,000,000,000. When the credit was withdrawn, a violent shrinkage in the value of these stocks took place. They were quoted for approximately $12,000,000,000 in 1932, at the low.

Check debits fell from $1,230,000,000,000 in 1929 to $430,000,000,000 in 1933. The effect of this contraction reflected itself naturally in the increased purchasing power of the money in terms of stocks that remained, so that dollars bought about seven times as much stock at the low in 1932 as at the high in 1929.

The effect on the price of commodities, however, was very much less because commodities comprise the actual necessities, comforts, and conveniences of life which the people employ day by day. There was no speculation in the commodity markets during this period. Therefore, the purchasing power of money in terms of commodities fell only to 60 at the low point from 95 in 1929.

While this contraction in the money supply was taking place and the demand bank deposits and convertible time deposits fell from $34,000,000,000 in 1929 to $14,000,000,000 in 1932, the volume of commodities also fell, due to unemployment. This made commodities scarcer and, therefore, worth more in terms of money, and helped to prevent the money rising higher in its purchasing power of commodities.

Money, therefore, is affected in its purchasing power not only by the expansion and contraction of the volume of money but also by the general expansion and contraction of the volume of commodities bought and the volume of securities for sale.

The price level, or all-commodity index, might be affected by a general drought that would make scarce all agricultural products and influence the products of animal industry. In regulating the value of money by regulating the volume of money account must be taken therefore, of any national drought or state of war that would interfere with the normal flow of commodities.

There are four factors which enter into the cost of an individual commodity. If the supply of wheat is in great excess of what the American people require in wheat (or the substitutes available for wheat) then wheat will fall in price under the law of supply and demand because of its superabundance. The same thing is true with cotton or potatoes, regardless of the volume of money. But, if the volume of money is expanded and the potato crop is only half the normal supply, the price of potatoes would rise very much higher because of the two factors of scarcity of potatoes and unusual abundance of money. If, on the other hand, the money supply was greatly contracted and the potato crop was two or three times as much as normal, in many places the potatoes would remain in the ground, not worth digging up.

It is extremely difficult to forecast whether a potato crop will be superabundant or extraordinarily scarce, because it depends upon many factors, particularly climatic conditions.

The United States Government, however, through the employment of its present facilities and its present laws, can regulate the value of money in regard to commodities and all forms of property, leaving the individual commodity to be controlled by other factors which may or may not be controlled by the Government.

The following table shows the annual supply of check money and the rise and fall of the price level from the years 1929 to 1938

Rise and fall of checks cashed and the price level

	Checks [1]	Price level		Checks [1]	Price level
1929	1,230	95.2	1934	470	74.6
1930	900	86.8	1935	530	79.8
1931	660	72.1	1936	611	80.6
1932	450	63.9	1937	637	81.7
1933	430	65.0	December 1938	530	77.0

[1] Indicates billions and decimals thereof.

Source: Board of Governors of the Federal Reserve System.

Chapter IX

THE RELATIONSHIP OF THE PRICE LEVEL TO FACTORY EMPLOYMENT AND WAGES

It is of importance to understand the relationship of the price level, or money supply, to factory employment and factory wages.

Naturally, when the money supply is severely contracted, there will be a shortage of money with which to buy the products of labor. And, therefore, the products of labor must be diminished because the factories cannot afford to create products which cannot be sold. When there is a great scarcity of money, therefore, the result is a shortage of the means of paying wages, salaries, and carrying inventories, as well as the means with which to buy the products of labor. When consumption of the products of labor is cut down it results in cutting down the production, which means cutting down the number of those employed in production.

Necessarily, a shortage of money means a lesser consumption, lesser production, lesser employment.

This reasoning is borne out by the statistical evidence collected by the Department of Labor for a long period of time. It is of importance to understand this vital fact: That factory employment and factory wages fall when there is a contraction of the money supply, and rise when there is an expansion of the money supply.

The following table graphically sets forth these comparisons for the years 1920 through 1935.

The effect of the rise and fall of the price level on factory employment and wages

Prices	Employment	Pay roll	Prices	Employment	Pay roll
1920:			1925:		
154.4	114.9	117.2	106.0	96.3	95.4
153.9	113 7	115.5	106.4	98.1	100.8
158.0	116.0	123.7	106.6	98.8	102.4
161.9	114.5	120.9	103.4	98.7	100.0
165.0	112.0	122.4	102.6	98.1	100.7
160.7	111.1	124.2	104.2	98.0	98.7
159.4	108.5	119.3	106.3	97.8	96.8
153.9	108.8	121.6	106.5	99.5	99.3
150.0	107.5	119.8	105.8	101.5	98.8
140.6	103.7	115.8	104.3	102.2	104.6
130.0	97.4	107.0	104.4	101.8	104.6
118.7	89.7	98.0	103.4	101.5	105.2
1921:			1926:		
112.4	81.0	82.8	103.2	100.5	100.9
106.0	82.6	81.3	102.5	101.5	105.0
102.9	83.2	81.7	100.5	102.1	106.5
99.0	82.1	79.0	100.0	101.4	104.4
96.3	81.9	77.3	100.5	100.4	103.1
93.5	81.0	75.4	100.8	100.3	103.3
93.3	79.8	71.7	99.7	99.4	99.0
93.8	81.2	73.9	98.7	101.4	103.4
93.8	83.4	73.4	99.6	103.4	104.4
93.8	84.1	72.6	99.1	103.1	107.6
93.2	84.2	71.7	98.0	101.4	104.1
92.6	83.3	73.3	97.4	100.0	103.5
1922:			1927:		
91.6	82.5	69.6	96.6	98.2	98.4
93.6	84.6	72.4	95.9	99.7	104.4
95.5	85.9	74.9	94.5	100.2	105.7
95.6	85.8	73.8	93.7	99.6	104.5
98.8	87.9	77.2	93.7	99.1	104.0
99.0	89.8	80.5	93.8	99.1	102.4
102.5	88 2	78.5	94.1	98.1	98.5
102.6	91.4	83.0	95.2	99.3	101.9
101.2	94.5	87.0	96.5	100.5	101.4
102.0	97.0	89.5	97.0	99.6	102 1
103.0	99.0	93.4	96.7	97.4	98.5
103.4	100.5	95.7	96.8	96.1	99.5
1923:			1928:		
103.1	100.7	94.6	96.3	95.0	96.0
103.8	102.5	97.9	96.4	96.5	101.2
105.0	104.6	102.5	96.0	97.6	102.5
105.0	105.0	103.8	97.4	97.1	100.5
103.5	105.3	107.3	98.6	97.0	101.3
101.7	106.0	107.5	97.6	97.8	101.7
99.8	104.9	103.3	98.3	97.7	99.0
99.4	105 2	103.8	98.9	100.1	103 3
101.8	105 7	104.3	100.1	102.2	104.7
101.4	104.5	106.6	97.8	102.6	108.2
100.7	103.2	104.5	96.7	101.7	105.0
100.0	101 4	102.9	96.7	101.2	105.6
1924:			1929:		
100.0	100.2	98.8	97.2	100.8	102.3
100.5	101.5	104.1	96.7	102.9	109.3
99.3	101.7	104.1	97.5	104.1	111.6
98.3	99.9	101.8	96.8	105.3	112.6
97.3	96.8	97.5	95.8	105.3	112.9
95.7	93.8	92.4	96.4	105.6	111.2
97.3	91.0	85.7	98.0	106.1	107.2
99.1	92.1	89.3	97.7	107.9	112.0
98.5	94.4	92.5	97.5	109.0	112.9
100.6	95.3	95.1	96.3	107.7	112.4
101.1	94.8	93.7	94.4	103.6	104.1
103.9	96.1	97.6	94.2	99.8	100.7

The effect of the rise and fall of the price level on factory employment and wages—Con.

Prices	Employment	Pay roll	Prices	Employment	Pay roll
1930:			1933:		
92.5	97.3	95.9	62.0	60.2	39.5
91.4	97.3	98.8	59.8	61.1	40.2
90.2	96.9	98.8	60.2	58.8	37.1
90.0	96.3	97.7	60.4	59.9	38.8
88.8	94.8	95.4	62.7	62.6	42.7
86.8	92.9	92.3	65.0	66.9	47.2
84.4	89.5	84.3	68.9	71.5	50.8
84.3	88.8	83.3	69.5	76.4	56.8
84.4	89.6	84.1	70.8	80.0	59.1
83.0	87.7	82.2	71.2	79.6	59.4
91.3	84.6	76.8	71.1	76.2	55.5
79.6	82.3	75.2	70.8	74.4	54.5
1931:			1934:		
78.2	79.6	70.0	72.2	73.3	54.0
76.8	80.3	74.3	73.6	77.7	60.6
76.0	80.7	75.6	73.7	80.8	64.8
78.4	80.7	74.4	73.3	82.3	67.3
73.2	80.1	73.4	73.7	82.4	67.1
72.1	78.4	69.7	74.6	81.1	64.9
72.0	77.0	66.2	74.8	78.6	60.4
72.1	77.1	65.9	76.4	79.4	62.3
71.2	77.4	63.4	77.6	75.8	59.1
70.3	74.4	61.3	76.5	78.4	61.0
70.2	71.8	58.1	76.5	76.8	59.5
68.6	71.0	57.6	76.9	78.1	63.2
1932:			1935:		
67.3	68.7	53.5	78.8	78.6	64.1
66.3	69.5	54.6	79.5	81.2	69.1
66.0	68.4	53.1	79.4	82.4	70.8
65.5	66.1	49.5	80.1	82.4	70.7
64.4	63.4	46.8	80.2	81.1	68.5
63.9	61.2	43.4	79.8	79.7	66.5
64.5	58.9	39.8	79.4	79.5	65.3
65.2	60.1	40.6	80.5		
65.3	63.3	42.9	80.7	83.5	72.1
64.4	64.4	44.7	80.5	85.3	75.1
63.9	63.4	42.9	80.6	84.8	74.5
62.6	62.1	41.5	80.9	84.6	72.2

Source: Hearings before the House Banking Committee on H. R. 7230, March 1938.

It will be observed that as the price level, which represents the volume of money employed in buying all of 784 listed commodities in the wholesale markets, rises or falls, within from 30 to 60 days, as a rule, factory wages and factory employment rise and fall correspondingly.

The following table gives the high and low points for the same period of time:

Table showing index price level, factory employment, and factory wages

[As employment and wages have a short lag, the figures in italics below have their dates a month or two later]

Commodity index		Factory employment	Factory wages
June 1920	166.7	111.1	124.2
January 1922 down to	91.6	82.5	69.6
April 1923 up to	105.0	105.0	107.0
June 1924 down to	95.7	91.0	85.7
August 1925 up to	106.5	*102.2*	*104.6*
May 1927 down to	93.7	*98.1*	*98.5*
September 1928 up to	100.1	*102.6*	*108.2*
October 1929	100.1	109.0	112.9
February 1933 down to	59.8	*58.8*	*38.8*
September 1933 up to	70.8	80.0	59.1
March 1936 up to	79.6	84.2	75.7

Source: Hearings before the Committee on Agriculture and Forestry, United States Senate, 75th Cong., on farm commodity prices, June 7, 8, and 9, 1937.

It is of importance to remember that for every man and woman employed in the factories there is a constant ratio of about two and one-half persons employed in other lines of business. In order, therefore, to restore factory employment and other lines of employment to a maximum, it is necessary to expand the money supply and to raise the price level to at least normal, until a sufficient amount of money is supplied to pay annual living wages to all of those who are able and willing to labor in the factory, the field, the mine, and in the services.

THE PRICE LEVEL IN RELATION TO CAR LOADINGS

The price level, representing as it does the relative volume of money employed in the wholesale markets, should be compared also with the index of car loadings as further proof that changes in the money supply employed in the wholesale markets is accompanied by corresponding changes in the index of car loadings.

The index of car loadings is based upon absolute knowledge of day to day figures and, therefore, is very dependable.

The price level and freight car loadings

Year	Price level	Freight car loadings [1]	Year	Price level	Freight car loadings [1]
1925	103.0	103	1932	63.9	55
1926	100.4	107	1933	65.0	58
1927	94.1	104	1934	74.6	62
1928	96.7	104	1935	79.8	64
1929	95.2	107	1936	80.6	75
1930	86.8	92	1937	81.7	78
1931	72.1	74			

[1] Average per working day.

Source: Board of Governors of the Federal Reserve System.

These carloadings, it should be remembered, indicate the greatest factor in the revenues of railroads. Their falling off during these years plainly points out that the most important reason for the distress of the railroads is the contraction of the money supply in the wholesale markets. The money employed in the wholesale markets represents the diminished purchasing power of the consumers due to a contraction of the money supply.

THE EFFECT OF THE VOLUME OF MONEY ON THE VOLUME OF CONSTRUCTION CONTRACTS

It will be noted that the index of construction contracts varied in the same manner, substantially, as carloadings and industrial production. The index of construction contracts, as compared with the

price level, or all-commodity index, or volume of money employed in the wholesale markets, for the years 1926 to 1936, inclusive, follows:

The price level and construction contracts awarded (value)

Year	Price level	Construction contracts awarded (value)	Year	Price level	Construction contracts awarded (value)
1926	100.4	129	1932	63.9	28
1927	94.1	129	1933	65.0	25
1928	96.7	135	1934	74.6	32
1929	95.2	117	1935	79.8	37
1930	86.8	92	1936	80.6	55
1931	72.1	63			

Source: Board of Governors of the Federal Reserve System.

THE EFFECT ON EXPORTS AND IMPORTS OF THE CONTRACTION OF CREDIT AND THE MONEY SUPPLY

It seems desirable to call attention to the contemporaneous effect upon our imports and exports as compared with the volume of checks debited—money supply.

The following table shows these relationships:

Check money and exports and imports

[In billions and decimals thereof]

Year	Check money	Exports	Imports	Year	Check money	Exports	Imports
1929	1,230	5.2	4.4	1933	430	1.7	1.4
1930	900	3.8	3.1	1934	470	2.1	1.7
1931	660	2.4	2.1	1935	530	2.3	2.0
1932	450	1.6	1.3				

Source: Board of Governors of the Federal Reserve System.

THE EFFECT ON OUR BUSINESS ENTERPRISES OF THE CONTRACTION OF CREDIT AND THE MONEY SUPPLY

During the World War, when credit was greatly expanded, from 1914 to 1920, the normal number of business failures which occur from the incapacity of individuals was diminished. When the contraction of credit and currency took place in 1921, in the summer of 1920 and 1921, these failures increased in number and in the amount of money involved.

The effect of the depression of 1921 on the banks of the country was very serious, since it diminished the solvency of individual borrowers and the value of investments held by the banks. When the depression of 1929–32 came, these effects again reappeared increasing the number of failures and the amount involved.

The effect which follows such a depression is not always immediately felt by the business houses or by the banks because men do not fail until they are forced into failure. This takes a certain element of time.

There is here inserted a table showing the number of failures and the amounts involved in business houses with the decline in the number of banks in the United States from 1914 to 1935.

Decline in the number of banks and commercial failures with amounts involved

Year	Number of national banks (June 30 or nearest date)	Number of State banks (June 30 or nearest date)	Total number of banks (June 30 or nearest date)	Number of commercial failures	Amount of failures (in millions)
1914	7,514	18,760	26,274	18,280	357.9
1915	7,597	19,008	26,605	22,156	302.3
1916	7,571	19,470	27,041	16,993	196.2
1917	7,599	19,896	27,495	13,855	182.4
1918	7,699	20,635	28,334	9,982	163.0
1919	7,779	20,821	28,600	6,451	113.3
1920	8,024	21,805	29,829	8,881	295.1
1921	8,150	22,410	30,560	19,652	627.4
1922	8,244	21,914	30,158	23,676	623.9
1923	8,236	21,597	29,833	18,718	539.4
1924	8,080	20,916	28,996	20,615	543.2
1925	8,066	20,413	28,479	21,214	443.7
1926	7,972	19,882	27,854	21,773	409.2
1927	7,790	18,975	26,765	23,146	520.1
1928	7,685	18,256	25,941	23,842	489.6
1929	7,530	17,580	25,110	22,909	483.3
1930	7,247	16,605	23,852	26,355	668.3
1931	6,800	15,103	21,903	28,285	736.3
1932	6,145	12,901	19,046	31,822	928.3
1933	4,897	9,622	14,519	20,307	502.8
1934	5,417	10,418	15,835	12,185	264.2
1935	5,425	10,569	15,994	11,879	230.1

Source: Board of Governors of the Federal Reserve System.

Students will recall where the contraction of money took place in 1921 and in 1929–32 it was reflected in the items above set forth immediately.

Chapter X

THE INDEX OF INDUSTRIAL PRODUCTION

The index of industrial production is based upon the volume of a number of industries, under some 60 classifications, representing about 80 percent of the total of the national industrial production.

This index was based upon the years 1923–25 in order to give a more stable basis of comparative calculation in succeeding years. These calculations are made from a vast amount of data and are worked out by mathematical and economic calculations. A full explanation of these calculations and the methods by which they are made will be found in the Federal Reserve Bulletin of February and March 1927, and reprinted in a pamphlet in November 1937.

The index of industrial production represents the percentage of the volume of industrial production of 1 year as compared to the basic average of 1923–25, which was put at the arbitrary figure of 100 for purposes of comparison.

The kinds of industries used as a basis and their relative importance are as follows:

Data used in index of industrial production	*Relative magnitude*[1]
Manufactures	85.71
Iron and steel and their products	19.77
Textiles and their products	17.72
Food products	9.19
Paper and printing	10.76

[1] Computed from average annual data for the 3-base period years, 1923-25, with revisions to 1937.

Data used in index of industrial production—Continued	*Relative magnitude*
Lumber and allied products	8. 27
Transportation equipment	5. 36
Leather and its manufactures	3. 37
Stone, clay, and glass products	2. 56
Metals and metal products, other than iron and steel	1. 75
Chemicals and allied products	1. 96
Rubber products	1. 87
Tobacco manufactures	1. 08
Minerals	14. 29
Industrial production	100. 00

Source: Board of Governors of the Federal Reserve System.

The index of industrial production should normally expand at the rate of 4 percent annually because of the increase of population, of horsepower, and of electric energy used for light, heat, and power.

As an example, power-producing machinery in the United States has increased from 704,266,000 horsepower in 1924 to 1,198,000,000 in 1935. The increase of electric energy has been much greater than 4 percent per annum and the expansion of this power in process of production may be expected to continue this increase for years to come.

In the Federal Power Commission's pamphlet "Electric Power Statistics" the following table appears, giving the expansion of kilowatt-hours since 1920 through 1937:

Production of electric energy in the United States

	Total [1]		*Total* [1]
1920	42, 664, 014	1929	95, 165, 462
1921	40, 584, 040	1930	93, 855, 381
1922	47, 071, 804	1931	90, 089, 852
1923	54, 857, 797	1932	81, 827, 806
1924	58, 137, 300	1933	84, 175, 704
1925	65, 011, 833	1934	90, 219, 957
1926	73, 055, 002	1935	97, 811, 305
1927	78, 579, 669	1936	111, 431, 357
1928	85, 769, 014	1937	121, 049, 630

[1] Thousands of kilowatt-hours.

It will be observed that the total of kilowatt-hours has increased from 42.6 billions in 1920 to 121 billions in 1937, nearly 200 percent in 18 years or over 10 percent per annum; whereas our money supply since 1926 has decreased at least 23 percent, as shown by the volume of money employed in the wholesale primary markets, the all-commodity index having gone from 100 down to 77. And our total check money having gone from $845,000,000,000 in 1926 to an estimate for the year 1938 of approximately $530,000,000,000, a contraction of $300,000,000,000 in 12 years, or about 35 percent.

THE RELATIONSHIP OF THE INDEX OF INDUSTRIAL PRODUCTION TO THE PRICE LEVEL

The price level, or the volume of money employed in the purchase of the 784 commodities in the wholesale markets, has a very important relationship to the index of industrial production, as well as to factory employment.

When the price level, or volume of money, rises in the wholesale markets, the index of industrial production rises. When the volume

of money employed in the wholesale markets falls, the index of industrial production falls.

For example: In 1929 the price level was 95, and the index of industrial production was 119, for the average of 1929. In February 1933 the index of the volume of money employed in the wholesale markets, or the price level, was 60 and the index of industrial production had fallen from 119 to 64. In July 1938 the index of industrial production was 81 while the price level was 78.8.

It thus appears clearly that the volume of money employed in the wholesale markets not only indicates the purchasing power of money, but it demonstrates that with the fall of the volume of money in the wholesale markets, industrial production falls in corresponding degree.

We have elsewhere shown that the price level, or volume of money employed in the wholesale markets, indicates factory employment; and that factory employment rises as the volume of money in the wholesale markets rises. Of course as factory employment rises industrial production would necessarily rise. So that both the reason and the statistical fact should be perfectly clear that the volume of money employed in the wholesale markets indicates factory employment and industrial production.

In dealing with factory employment and industrial production, the money employed in the wholesale markets is therefore a vital determining influence.

Since the rise and fall of the price level, or the money supply, indicates the rise and fall of employment and factory production, it is of importance to note the relationship between the price level and the index of industrial production. The following table shows this relationship:

The price level and the index of industrial production

Year	Price level	Index of industrial production[1]	Year	Price level	Index of industrial production[1]
1926	100.4	108	1932	63.9	64
1927	94.1	106	1933	65.0	76
1928	96.7	111	1934	74.6	79
1929	95.2	119	1935	79.8	90
1930	86.8	96	1936	80.6	105
1931	72.1	81	1937	81.7	110

[1] Average per working day.

Source: Board of Governors of the Federal Reserve System.

Chapter XI

THE INADEQUACY OF THE PRESENT TERMS "THE PRICE LEVEL" AND "THE PURCHASING POWER OF MONEY"

The present term, "the price level," based on the volume of money employed in 1926, does not take into account any change in the volume of commodities on which the price level is based. And, of course, the term "the index of the purchasing power of money" also ignores the change in the volume of the designated commodities.

It should be obvious that if for any reason the volume of such commodities should increase 4 percent per annum, the volume of money employed should rise 4 percent, otherwise the money employed would buy 4 percent more of the commodities and products of labor, whereas

a dollar of uniform purchasing power should buy the same volume of commodities from one year to another if labor is to receive a fair reward in dollars for what it creates, and if the debtor is to be allowed to pay the creditor in dollars of the same purchasing power.

To increase industrial production requires an increase in the money supply up to the point that maximum employment of men and machinery is achieved. Beyond this point no expansion of money seems to be desirable, and any serious expansion beyond this point might be highly disadvantageous as it would have the effect of unduly increasing the value of property and decreasing the purchasing power of money in those forms of property in which money is invested, such as stocks, bonds, real estate, etc.

Many people have objected to any rise in the all-commodity index because it has been designated loosely as "the price level." Many people think, therefore, that raising the price level means only raising the price of individual commodities which they wish to buy, forgetting that increasing the money supply would end unemployment, would create a rising individual income, individual wages, and increase the market price of the products of labor. This is not true. If the money supply were to rise 50 percent while the volume of commodities rose 50 percent, the market price of the individual commodities on the average would not be changed, since the 50 percent increase of such commodities would diminish the market price of individual commodities in proportion, and the increase of the money supply would merely offset what otherwise would be a contraction in the selling price of what the people produce. Giving them a fair price for what they produce, enables them to have the consuming power with which to buy what they produce.

At last, the producers of the United States and the consumers of the United States represent all of the people.

Individual commodity prices may be raised by the scarcity of individual commodities or may be raised by artificial means through monopolies fixing the price of their products, such as copper, lead, or special products. The question of artificially raising prices unfairly through monopoly lies outside of the field of monetary science, except to call attention to it as a factor of prices.

It has been complained that prices are artificially raised in construction by bricklayers, plumbers, and carpenters through labor unions charging an excessive price for their labor, as compared to the labor of other people engaged in services to each other. This may be true, but that question is a question which is no part of monetary science, beyond pointing out the fact that stability in our industrial life, when established through public monetary control, will enable the Government to better control monopoly; and will enable labor, by virtue of stability in continuous employment, to make contracts involving an annual living wage, rather than the present precarious employment of bricklayers, plumbers, carpenters, etc.

Chapter XII

THE METHODS BY WHICH MONEY IS EXPANDED AND CONTRACTED

The money of the country, consisting of currency and demand bank deposits, is expanded as follows:

The currency of the United States, which is required for pocket money and to pay for the purchases daily of products and services,

is minted and printed by the Government and distributed to the banks of the country through the Federal Reserve banks. The banks call for the currency to the extent that they need it for the prompt and immediate cashing of checks by depositors. The people, therefore, obtain this money from the Government. The Government creates all of this money. The States are forbidden to manufacture it, and it is a crime to counterfeit it. This currency is used as a medium of exchange. When a merchant receives from his customers more currency than he needs in his till, he deposits it with the banks.

When the banks receive more currency than they require, they send it back to the Federal Reserve bank of their district and receive credit for it. The currency may be returned to the Federal Reserve agent by the Federal Reserve bank if it has an excess. It not only is employed as a medium of exchange by the people, but many people who have no bank account keep their little supply of money in some safe place as a hoard from which they can obtain money for any unusual demand, such as sickness, a birth or a death, or a marriage in the family. Sometimes this hoarding becomes excessive and causes a dearth of the currency supply. So that this currency may be contracted by the citizens who have it as pocket money. This occurs during a depression when money becomes scarce.

Demand bank deposits, upon which check money is drawn, are created by loans and investments as described in a previous chapter.

It is of special importance that students should observe the manner in which the reservoir of demand bank deposits can be contracted as a medium of exchange.

If the loan of a businessman is paid upon the demand of the bank, or because the businessman wishes to pay it, it is paid with a check on a demand deposit, and the demand deposit ceases to exist to the extent of the amount of the check. From 1929 to 1933 such business loans were contracted from 41.6 billion to about 21.2 billion dollars, thereby contracting the volume of demand deposits and of time deposits (which had been exchanged previously for demand bank deposits), leaving the deposits of the banks 20 billion dollars less than they had been in 1929. This was a contraction of the demand deposits by the contraction of loans. The amount in which demand deposits were contracted from 1929 to 1938 is shown by the following table:

Contraction of demand deposits and decline of bank loans

	Total loans, all banks [1]	Estimated debits to individual accounts for all commercial banks [2]		Total loans, all banks [1]	Estimated debits to individual accounts for all commercial banks [2]
1929	41.5	1,230	1934	21.3	470
1930	40.6	900	1935	20.3	530
1931	35.4	660	1936	20.1	611
1932	27.8	450	1937	22.5	637
1933	22.2	430	1938	21.1	530

[1] In billions of dollars; June 30 or nearest date.
[2] In billions of dollars; annual figures.

Source: Board of Governors of the Federal Reserve System

It will be seen by this table that when the United States began in 1933 to increase the money supply by the sale of bonds, the deposits began to rise again.

It is of the greatest importance that students should understand that a demand deposit, which is hoarded by the depositor and kept unemployed awaiting future use or investment, does not function as a medium of exchange. A hoarded deposit is not used for the employment of human labor, for the payment of wages and salaries, or for carrying inventories of the products of labor. A hoarded demand deposit is temporarily as useless in the national economy of production as if it did not exist. The Federal Deposit Insurance Corporation in October 1934 located many billions of demand deposits that were held as reserves. They were called dormant accounts.

Such inactive, unemployed demand deposits contract the volume of the medium of exchange existing in the form of demand bank deposits.

When the Treasury sells baby bonds to small demand bank depositors, it withdraws such demand deposits. The proceeds of the sale of the baby bonds become dormant accounts until expended by the Government. When the Government sells its bonds through the banks to the citizens, it has the same effect of temporary contraction.

When it sells its bonds to the banks and the banks retain the bonds, the volume of demand deposits is increased until the bonds are paid off. When the bonds are paid off they are paid off through taxes collected by the Government from demand deposits. And, therefore, the payment of the national debt by taxation, without any further expansion of the demand bank deposits, would reduce demand bank deposits to zero and cause universal bankruptcy.

Whenever the Government collects money by taxes it contracts temporarily the demand deposits, or the money supply. About $4,000,000,000 of the present demand deposits are held by the Government, the States, and their subdivisions, as heretofore pointed out.

When corporations, States, cities, or counties sell their bonds to the banks they create new money because the banks create and give them demand deposits in exchange for their bonds. The banks therefore create money by their investment in these bonds. When the bank takes the bonds, it, in effect, makes a loan to the State, city, county, or corporation. When such bonds are paid off, they are paid off with demand deposits as to the proceeds of taxes, or as dividends arising from profits to the corporations.

When a corporation sells its goods to the public and receives therefor a net profit, it withdraws the net profit in the form of demand deposits.

When an insurance corporation receives its premiums and makes a net profit, it does so by withdrawing from the country demand deposits. This is a contraction of credit process. When these moneys are paid out in dividends they are paid out in demand deposits and expand demand deposits again, as a circulating medium.

When any creditor receives interest on bonds or on loans or debts, he is paid in demand deposits. The demand deposits may then and there be withdrawn from circulation as a reserve for future investment.

During the last few years $5,000,000,000 or $6,000,000,000 of gold has come into the United States for the purchase of American dollars.

This gold has been bought by the United States through the issuance of bonds and converted into gold certificates which have been delivered, or pledged, to the Federal Reserve banks. When the Government bought this gold they contracted the money supply, to the extent represented by the gold, and when they issued their bonds in payment, they expanded the money supply through demand deposits. The net result of these transactions was to prevent any expansion of monetary credit by the flow to the United States of this gold.

It was a contraction process when the $2,000,000,000 stabilization fund was established, as it withdrew from circulation that amount of gold or its monetary equivalent. When the Government sterilized $1,500,000,000 of gold, it was a credit contraction process.

A member bank may contract demand deposits by selling its bonds to the demand bank depositor, or by selling the depositor time deposits in exchange for his demand deposit, or a savings account in exchange for his demand deposit. A member bank, when it collects interest on its loans and passes such interest to the account of undivided profits, contracts demand deposits to that extent because the bank is paid out of demand deposits by the borrower who owes the interest.

When the Federal Reserve banks buy the bonds of the United States, it will be an expansion of the money supply. If bought from the citizen who holds such bond, the citizen would sell his bond through his local bank, receiving demand deposits for the bond and the bank would transmit the bond to the Reserve bank as an addition to the bank's reserves. Such a transaction would increase the reserves of the member banks and increase the volume of demand bank deposits in the bank through which the sale was made.

If the Reserve bank were to buy a million dollars of bonds from a member bank, it would increase the reserves of such member bank by $1,000,000 in the Reserve bank but would not add to the demand deposits of citizens engaged in industry. It would, however, facilitate the opportunity of the bank to lend such money to the citizen.

If the Reserve banks were to buy from citizens on the open market State bonds, county bonds, city bonds, or corporation bonds, it would have the effect of increasing the reserves of the banks which sold them to the Reserve bank. If they were bought from citizens it would increase the demand deposits of the citizens and also increase the reserves of the member bank through which the transaction was made.

The Federal Reserve banks, therefore, have the power to expand the money supply to whatever extent is necessary to achieve maximum employment, maximum production, maximum consumption, and to restore the dollar index to the predepression normal of 100. They have the power to contract the money supply by selling the same secutities back to the citizens who have demand deposits.

The Government, therefore, has the power, through the Federal Reserve System, of expanding and contracting the money supply to whatever extent the public good requires. They can correct the present scarcity of money and they can end the indefensible contraction of the money supply which has taken place since 1929. They can prevent any indefensible expansion of the money supply (demand deposits or bank credit) by selling the bonds and sound bankable assets previously bought.

THE VELOCITY OF DEMAND BANK DEPOSITS

It has been a habit of those discussing the turn-over of demand bank deposits by checks to speak of this turn-over as the velocity of money. They determine the velocity by the number of times the total of demand bank deposits is contained in the volume of checks debited on the books of all the banks.

This conception ignores the fact that the total volume of demand bank deposits represents the holdings of millions of depositors, represents deposits which turn over 100 times per annum, and other deposits that turn over once or twice, or perhaps not at all during a given year.

In recent years it has been learned that in periods of active business and full confidence, a very large part of those deposits turn over at the high speed, and a comparatively small percentage are inactive and dormant.

In times of depression, it has been found that inactive and dormant accounts comprise a very substantial portion of the demand bank deposits. Therefore, it has become necessary to clearly appreciate and to ascertain by a proper inquiry the extent to which demand deposits are dormant, inactive, and not vigorously functioning as a medium of exchange, economically employed in the rapid transaction of daily business.

The Federal Deposit Insurance Corporation, in 1934, found that $6,000,000,000 of demand deposits were held as reserves by corporations and individuals for future investment.

In 1929 the total turn-over of demand deposits reached approximately 50 times the volume of demand deposits. The demand deposits were $24,000,000,000 and the volume of checks debited was $1,230,000,000,000. But there were $10,000,000,000 of time deposits, quickly convertible into demand deposits, in that year. A substantial part of these time deposits were functioning as demand deposits for the reason that the reserves required by law to be held by the banks against time deposits were small and the amount required to be held against demand deposits was large. In 1938, after the panic of 1937, about $4,000,000,000 of $26,000,000,000 was held by the Federal Government, State governments, and their subdivisions, received from taxes and in process of expenditure, and that the expenditures were being constantly replaced by taxes collected from demand deposits of those who pay taxes.

The estimate made by the Government that the average turn-over for 1938 would be $530,000,000,000, would indicate that only $11,000,000,000 of demand deposits were turning over at a pre-depression normal of 50 times per annum.

Thoughtful students will therefore beware of treating all demand deposits as moving with the same velocity, for this is by no means true.

HOW DEMAND BANK DEPOSITS CREATED BY THE GOVERNMENT FLOW INTO USE

The question has been raised that perhaps new demand bank deposits, created by the purchase of Government bonds by the Reserve banks, would remain unemployed and idle.

Those who sell interest-bearing securities for the purpose of obtaining liquid money do so because they wish to invest such money more

profitably. Some of them might hold it dormant, anticipating a more favorable opportunity for investment. But this would be entirely immaterial because there is no limit to which these deposits could be increased, if necessary, to cause an additional medium of exchange to function. It should be obvious, however, that when a country is famishing for ready money, the demand for it will cause the new liquid money to flow into commerce, industry, and investment.

What is of the greatest importance to observe is that the present money, in the form of demand deposits held by those who merchandise in money and stocks, will cease to be dormant whenever the Government declares its purpose to expand the money supply with a view to expanding employment. This is exactly what the dormant accounts are waiting for. They are waiting for evidence of a dependable rising market.

When, therefore, the Congress declares a national monetary policy and instructs the Board of Governors of the Federal Reserve System, the Treasury Department, and the Reserve banks to make effective such a national monetary policy, those who have been speculating in money, those who have been hoarding money, those who have been holding money as reserve, and those who have thus contributed to a cornering of the money supply, will make haste, because of the profit motive, to invest money, which threatens to fall in exchange value, for property, which promises to rise in market price.

Those who are merchandising in money with a view to speculative profits are well advised by trained monetary experts, who tell them when it is desirable to accumulate money, and when it is desirable to invest money in stocks and other forms of property. There need be no fear that those who merchandise in money will fail to act with intelligent self-interest in search of profit.

Thoughtful students will perceive the great importance of this suggestion.

THE MONEY CREATED BY THE PEOPLE

It has been pointed out that the failure of the Government to furnish the growing nation with a sufficient amount of money to transact a vast expansion of commercial business resulted in the people creating money for themselves through National banks and State banks. How this was done, through private and public loans, has been described.

But it is of importance to understand the volume which the people have thus created for their own convenience.

Taking the figures of 1929, before the panic, the people had created $55,000,000,000 of deposits in the banks. These deposits consisted of savings accounts, time deposits, and demand bank deposits. The savings accounts and the time deposits had been obtained from demand bank deposits previously existing which were sold or transferred to the banks in exchange for time deposits and savings accounts. These savings accounts and time deposits of course could be converted into demand deposits by the depositors, at their will, after an agreed number of days' notice.

The savings accounts had great stability because they represented money which prudent people kept in reserve for use in case of some unexpected exigency. The demand deposits were about $24,000,000,000; the time deposits, about $10,000,000,000; and the savings

accounts, about $21,000,000,000. This did not include the postal savings, nor the four or five billion dollars of inter-bank deposits.

So, it may be roughly said, that the people of the United States had manufactured their own money, holding at that time about $24,000,000,000 of demand deposits as an available medium of exchange and $31,000,000,000 of time and savings deposits, while the banks had an additional $5,000,000,000 of interbank deposits created by loans to, or deposits with, each other. In addition to this money, there was about $7,000,000,000 of bank capital, including their surplus and undivided profits.

The savings accounts and the time deposits were, as heretofore stated, money in storage and not employed as a medium of exchange in the transaction of monetary business. The people of the United States, through the system of corporations and the security exchanges, where the stocks and bonds of such corporations and of governments are traded in, had set up a vast machinery by which over $100,000,000,000 of such securities could be converted immediately into liquid money. These stocks and bonds, going into colossal figures, were investments of the American people, out of which they not only received dividends, but upon which they could rely in case of need to obtain liquid money by immediate sale in the security markets. On the New York Stock Exchange alone at present are 1,400,000,000 shares of common and preferred stock.

There are many other exchanges and there are over 300,000 corporations whose stocks and bonds are not listed, but whose book values, as shown by the records of the Collector of Internal Revenue, exceed $155,000,000,000 as of December 31, 1929.

Reference is made to these organizations and to the national wealth to show that the volume of money created by the people for their own use has been greatly in excess of what they require in the form of liquid money, or demand bank deposits circulating as a medium of exchange. It is because of these great values and investments of the people that they have required so large an amount of money as a medium of exchange and as a storage of value.

Students will thus realize that the volume of checks debited on the books of the banks in 1926 ($845,000,000,000) is not surprising in view of the active dealings of the people with each other in the properties involved.

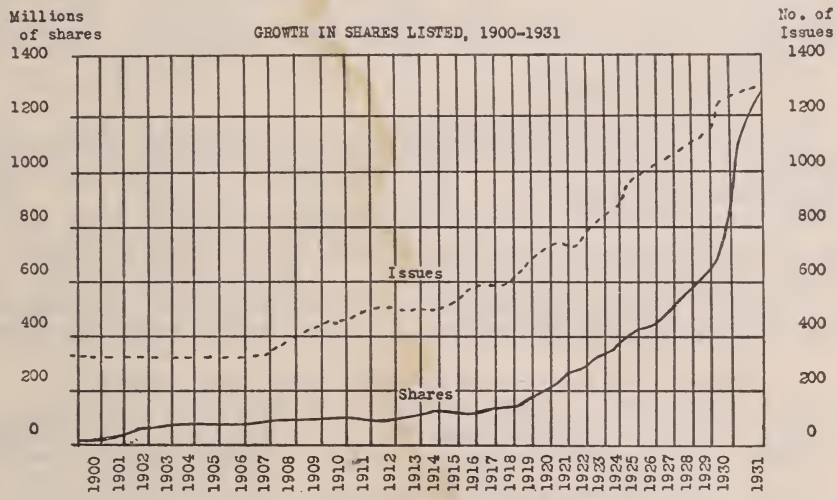
But since money is not only a medium of exchange but is a measure of value, it becomes of supreme importance that the Government should control and manage the volume of money required as a medium of exchange and measure of value. If the medium of exchange were expanded beyond the actual needs of the people for exchanging their products and services, it would result in inflation without adding anything to the convenience and necessity of the people for an adequate medium of exchange.

For this reason it becomes vitally important that the Government should not only regulate the volume of money in order to regulate the value of money, but should accomplish this through a statute setting up a sound national monetary policy that would always furnish the people with an adequate supply of money without

inflation, which would unduly expand the market price of property. Such a system would be fortified equally against any inflation and any indefensible contraction of the money supply. It should be implemented through competent executive officials directed by law to carry out the national monetary policy declared by Congress. (The quantity of money currently required has been heretofore explained.)

CREDIT EXPANSION THROUGH THE SALE OF STOCKS

In 1900 the stock certificates on the New York Stock Exchange amounted to 56,090,180. These certificates increased by less than 1,000,000 shares per annum until 1920, when they amounted to 220,753,423. But by the end of 1931 they had increased to 1,296,-



Source: New York Stock Exchange Bulletin

794,480 (these figures are for January of each year, common and preferred stocks combined). A chart, taken from the New York Stock Exchange Bulletin for August 1931, showing this trend, follows:

The number of issues increased from 377 in 1900 to 691 in 1920 and then to 1,308 in 1931.

Students will observe that beginning with 1921, the number of shares increased over 1,000,000,000 by 1931 which were sold to the general public and paid for by checks drawn on demand bank deposits.

During the 10 years from 1921 to 1930, inclusive, these stocks sold for $50,000,000,000 to the public and were paid for through the use of demand bank deposits. There was thus an expansion of credit in the form of salable stock certificates of about $50,000,000,000.

In addition there was a sale of corporation bonds to the public. The New York Stock Exchange gives these figures from 1925 to August 1931, in the following table:

Data on all listed bonds

Date	Number of issuers	Number of issues	Average price	Par value of listed bonds	Total market value
Jan. 1, 1925		1,332	$94.79	$35,457,811,674	$33,611,817,346
Jan. 1, 1926		1,367	95.98	36,995,089,533	35,509,211,458
Jan. 1, 1927		1,420	98.06	37,900,053,650	37,167,607,468
Jan. 1, 1928		1,491	99.98	36,881,320,122	36,874,717,458
Jan. 1, 1929	824	1,534	97.51	48,588,549,854	47,379,028,502
Jan. 1, 1930	824	1,543	95.59	49,058,099,434	46,892,458,780
Aug. 1, 1930	840	1,573	97.47	50,375,127,717	49,101,893,301
Sept. 1, 1930	842	1,578	97.69	50,457,382,317	49,293,758,598
Oct. 1, 1930	840	1,607	97.38	50,027,129,653	48,715,222,900
Nov. 1, 1930	840	1,615	96.47	50,191,572,803	48,417,892,161
Dec. 1, 1930	837	1,609	95.74	50,094,547,694	47,959,730,628
Jan. 1, 1931	838	1,607	94.63	50,072,879,397	47,381,805,889
Feb. 1, 1931	836	1,602	95.32	49,881,922,059	47,546,190,092
Mar. 1, 1931	837	1,605	95.53	50,108,876,488	47,869,817,155
Apr. 1, 1931	835	1,610	95.42	50,788,506,210	48,463,021,490
May 1, 1931	835	1,605	94.84	50,911,768,944	48,282,336,086
June 1, 1931	836	1,608	93.67	50,848,575,244	47,629,698,234
July 1, 1931	839	1,608	94.77	51,846,247,978	49,132,895,753
Aug. 1, 1931	842	1,608	93.14	51,938,698,878	48,375,745,828

Source: New York Stock Exchange Bulletins.

The sale of these securities was affected by discreet advertising campaigns and by bodies of salesmen trained to dispose of such securities to individuals.

It resulted in a bull market which began to recede in 1929, when the loans of the banks contracted from $41,600,000,000 by $20,000,000,000 at the end of 1932.

The effect of this expansion of credit and contraction of credit in the value of the securities sold will be seen from the following table:

Expansion and contraction of the average market price of securities

Date	Number of issues	Number of shares	Average market price	Date	Number of issues	Number of shares	Average market price
July 1, 1925	968	462,596,000	$64.19	July 1, 1932	1,253	1,315,172,000	$11.89
July 1, 1926	1,065	542,866,000	65.59	July 1, 1933	1,207	1,285,081,000	28.29
July 1, 1927	1,075	623,764,000	67.27	July 1, 1934	1,203	1,294,762,000	26.20
July 1, 1928	1,118	688,360,000	76.89	July 1, 1935	1,184	1,304,145,000	27.78
July 1, 1929	1,238	945,341,000	81.73	July 1, 1936	1,194	1,339,680,000	38.00
July 1, 1930	1,319	1,231,273,000	51.89	July 1, 1937	1,236	1,399,550,000	39.21
July 1, 1931	1,296	1,303,489,000	36.38	July 1, 1938	1,256	1,426,893,000	29.41

Source: New York Stock Exchange Yearbook and monthly bulletins.

Students will observe that the average market price per share for 1929 was $81.73, and was only $11.89 in 1932, showing an increase in the average purchasing power of the dollar of over 600 percent in 3 years.

The expansions of credit through these processes were man made, were uncontrolled by the Federal Government, and were incapable of control by individual bankers, who were, nevertheless, exercising the legal right to manufacture money in the form of demand bank deposits, and contracting money so made through the simple process of requiring the loans they had made to be paid off. The legal right of privately owned banks, State and national corporations to expand and contract the money supply of the country without governmental regulation, fully explains the financial and commercial disaster which began in 1929 and has not yet ceased (December 1938).

CHAPTER XIII

MONEY IN CIRCULATION AS AN INDEX OF NATIONAL INCOME

The National Bureau of Economic Research, in New York, estimated the income of the people of the United States for the years 1919 to 1933 in terms of the current purchasing power of the dollar for each year and also in terms of the purchasing power of the dollar for 1929. A table comparing these figures with the price level, or the volume of money employed in buying 784 commodities in the wholesale markets follows:

The price level and the value and volume of national production [1]

Year	Price level	National production		Year	Price level	National production	
		Current value of output	Volume of output valued at 1929 prices			Current value of output	Volume of output valued at 1929 prices
1919	135.6	$62,022,000,000	$50,383,000,000	1927	94.1	$66,118,000,000	$65,922,000,000
1920	166.5	74,494,000,000	52,069,000,000	1928	96.7	69,294,000,000	68,600,000,000
1921	93.4	47,292,000,000	45,345,000,000	1929	95.2	71,290,000,000	71,290,000,000
1922	96.3	51,219,000,000	52,125,000,000	1930	86.8	59,899,000,000	64,054,000,000
1923	100.3	63,121,000,000	60,727,000,000	1931	72.1	44,302,000,000	54,487,000,000
1924	94.9	60,047,000,000	58,615,000,000	1932	63.9	28,287,000,000	40,426,000,000
1925	103.0	65,047,000,000	62,860,000,000	1933	65.0	[2] 35,442,000,000	[2] 49,857,000,000
1926	100.4	68,610,000,000	66,588,000,000				

[1] Includes production of raw and finished commodities, construction and output of services directly related to production, transportation, and distribution of commodities.
[2] Preliminary.

Source: National Bureau of Economic Research. Not published currently. Board of Governors of the Federal Reserve System.

In 1919 and 1920 there was a great scarcity of commodities due to the World War and the withdrawal of many millions of men from works of destruction to works of production. There was great speculation in such commodities and therefore the volume of money employed in the wholesale markets rose to an excess compared to normal. This speculation was suppressed by the contraction of credit and currency of 1921, whereupon a new speculation took place in the sale and marketing and trading of securities as heretofore explained.

The variation in the estimate of national production, above shown, is accounted for by the fact that the index of industrial production for 1929, for example, was 119; and for 1933 was 76. This made an important difference in the actual purchasing power of money because in 1929 the volume of commodities was 19 percent above normal and in 1933 it was 24 percent below normal. (See chapter on The Dollar Index and the Price Level.)

The figures used by the National Bureau of Economic Research are not as extensive as are the figures employed in the more recent work by the statisticians of the Department of Commerce, who found that the national income was $81,000,000,000 in 1929 instead of $71,000,000,000 having employed a broader basis in their estimate. For purposes of comparison with the amount of money employed, these differences are comparatively unimportant. The national income, however, as estimated by the Department of Commerce from 1929 to date, is here included with a comparison of the price level for each of

those years; that is, a comparison of the amount of money employed in the wholesale commodity markets for the purchase of 784 commodities. It must always be remembered that the price level, from 1926 to date, represents only a percentage of the $54,700,000,000 employed in 1926 for the purchase of a fixed volume of 784 designated commodities in the wholesale markets.

The price level and national income

Year	Price level	National income produced [1]	Year	Price level	National income produced [1]
1929	95.2	81,128	1934	74.6	50,052
1930	86.8	68,302	1935	79.8	55,186
1931	72.1	53,822	1936	80.6	63,466
1932	63.9	40,014	1937	81.7	69,817
1933	65.0	42,256	1938 (July)	79.0	[2] 30,000

[1] In millions of dollars.
[2] Estimated for the first half of 1938.

Source: Survey of Current Business, June 1938. Board of Governors of the Federal Reserve System.

Since the income of the people of the United States determines their taxpaying power, we show a comparison of the check money employed annually and the annual Government income.

Comparison of check money employed annually and Government income

Fiscal year ending June	Check money [1]	Total Treasury receipts [2]	Fiscal year ending June	Check money [1]	Total Treasury receipts [2]
1932	450	2.1	1936	611	4.1
1933	430	2.2	1937	637	5.2
1934	470	3.3	1938	[3] 530	6.2
1935	530	4.0			

[1] In billions of dollars.
[2] In millions of dollars.
[3] Estimated.

Source: Board of Governors of the Federal Reserve System.

According to the estimates of the Department of Commerce of the national income of the people, beginning in 1929 with $81,000,000,000 and ending with $67,000,000,000 in 1937, it is obvious that the people of the United States, by virtue of the depression of 1929 and the collapse of bank credit, have failed to increase their national income by the normal increase of 4 percent. Not only have they failed to increase their income by this amount, but have actually suffered a loss. In 1930 the loss was $13,000,000,000; 1931, $17,000,000,000; 1932, $41,000,000,000; 1933, $39,000,000,000; 1934, $31,000,000,000; 1935, $26,000,000,000; 1936, $18,000,000,000; 1937, $12,000,000,000; making a total loss of $197,000,000,000 besides failing to gain 4 percent per annum on $81,000,000,000, or 32 percent of $81,000,000,000 by 1937.

The loss of 4 percent per annum for 1930 on $81,000,000,000; the loss of 8 percent for 1931; the loss of 12 percent for 1932; the loss of 16 percent for 1933; the loss of 20 percent for 1934; the loss of 24 percent for 1935; the loss of 28 percent for 1936; the loss of 32 percent for 1937; and the loss of 36 percent for 1938 would make a total loss

of 180 percent on $81,000,000,000 equal to a loss of $145,800,000,000, which could have been achieved under a wiser monetary system of government with stable money.

This makes a total loss of $197,000,000,000 plus $145,800,000,000, or $342,800,000,000. We failed to gain $145,800,000,000 and we actually lost $197,000,000,000. This demonstrates what the future holds for America under a wiser system of stable money, stable business, stable capital, and stable labor.

These figures emphasize the fatal effects of leaving the volume and value of money in private hands, that are moved by optimism and fear, instead of carrying out the constitutional mandate, which gave exclusive power to Congress to create money and the specific duty "to regulate the value thereof."

If, therefore, under Government control of the money supply, an adequate supply of money should be provided for maximum employment and industrial production, it is perfectly manifest that the people of the United States will soon be enjoying great abundance, ending unemployment, public relief and private charity, balancing the Budget, lowering taxes, and putting an end to undeserved poverty in the United States. This can be accomplished only by an informed public opinion which reflects itself in suitable legislation in the Congress of the United States.

THE VOLUME OF MONEY EMPLOYED IN ALL ECONOMIC ACTIVITIES

The price level deals only with the volume of money employed in the wholesale commodity markets, which comprises only a small part of the volume of money employed in other fields of our economic life.

Money is employed on a colossal scale in trading between individual and individual and corporation and corporation in the many steps through which raw materials go in the process of production until they are finally prepared for consumption. Money is used on a vast scale in the purchase and sale of real estate, and in the purchase and sale of all sorts of property and equities. Money is employed not only in the payment of wages and salaries, in carrying inventories and in producing commodities for the markets, but is used on a vast scale in the transportation business, and in the transmission of intelligence by mail, telephone, telegram, radio, and cable. It is used on a large scale for the payment of interests on debts, and for the payment of taxes to the Nation, the States, counties, and cities. It is used on a large scale to pay for the public-utility services, water, gas, electric lights, and power. It is used on a vast scale in the buying and selling of securities on the various security exchanges throughout the United States.

Fortunately, we have not only a knowledge of the amount of money employed in the wholesale commodity markets for the purchase of 784 different commodities but we have positive and absolute knowledge of the volume of money used in the transaction of all lines of business when the money is paid by check. This check money has been carefully calculated with dependable accuracy by the Federal Reserve Board. The figures have heretofore been given.

In addition to this use of money, as recorded by the checks debited on the books of the banks, the people have as pocket money probably

half of the currency in circulation outside of the United States Treasury. The total of such outstanding circulation has been given. It is probable that the people have as pocket money approximately $3,000,000,000, some of which is kept hoarded as a savings account by people who have no bank deposits.

The individual turn-over of money may be daily. Where check money is employed in transacting an active line of business, the daily income may be daily used to liquidate the debts of the merchant. The average annual turn-over of demand bank deposits, on which checks are drawn, was 50 times in 1929. A small unknown portion of these deposits had no turn-over, being held as reserves and for investment.

So that the actual turnover of those deposits, which were in active employment for the transaction of business, was higher than 50 times per annum.

In 1932 when the demand deposits reached a low point of about $14,000,000,000, the total check money turn-over was $450,000,000,000, or about 32 times per annum. Assuming that the demand deposits which were actually employed in active business were turning over at 50 times per annum, it would have taken only $9,000,000,000 of demand deposits in active circulation to have produced $450,000,000,000 of check turn-over, indicating that there was at that time probably $5,000,000,000 of demand deposits held as reserves or for future investment, and thus withdrawn as an active circulating medium.

At present, July 1938, the total demand deposits amount to about $26,000,000,000, of which about $4,000,000,000 are held by the Federal Government, the States, and their subdivisions as money withdrawn for taxation and in process of expenditure. Therefore, the total amount of money at this time in demand deposits is $22,000,000,000, producing an actual turnover at the rate of $530,000,000,000 per annum, indicating that less than $11,000,000,000 is actively employed at the normal rate of fifty times per annum.

When the money supply contracts, the people invent credit methods as a substitute for the shortage of money. Under this practice the merchants and manufacturers sell their goods on a partial payment plan. Finance companies are established to facilitate this substitute for an adequate money supply. The installment plan has grown to great proportions because of this shortage of money. This system involves a risk and is very expensive upon customers who pay for what they get, with abnormal interest.

THE ORIGIN OF BUYING POWER

The origin of buying power is the income received by individuals from wages, salaries, pensions, and investments of all sorts. Unless those who are consumers receive enough income from these several sources to enable them to buy they could not sell what they would be able to produce. Therefore, it is of importance in the national economy to consider the income of consumers as vitally necessary to maximum production.

When people are unemployed in large numbers it necessarily cuts down production, because their labor is not utilized in the production of products and services. The problem is to achieve maximum em-

ployment at wages and salaries sufficient to enable all the producers, who are also consumers, to buy the things produced, otherwise production based upon the profit system cannot achieve a maximum of abundance.

In this connection, the following table shows the classification of the 39,450,300 individuals who received incomes for the fiscal year ending June 30, 1936:

Distribution of national income

Distribution, by income groups	Distribution of national income		Distribution of income		Individual average
	Persons	Received income	Individuals	Received	
	Percent	*Percent*			
$1,000 a year or less	46.54	18.23	18,358,949	$10,806,660,000	$588
$1,000 to $2,000 a year	35.28	33.02	13,920,349	19,573,219,000	1,406
$2,000 to $3,000 a year	11.24	17.85	4,434,085	10,576,567,000	2,385
$3,000 to $5,000 a year	4.60	11.21	1,818,269	6,643,463,000	3,654
$5,000 to $10,000 a year	1.51	6.91	595,908	4,032,226,000	6,867
$10,000 to $25,000 a year	.66	6.43	260,430	3,810,613,000	14,678
$25,000 to $50,000 a year	.13	2.96	51,882	1,751,851,000	33,766
$50,000 to $100,000 a year	.03	1.53	13,041	908,485,000	69,664
Over $100,000 a year	.01	1.86	5,387	1,095,544,000	203,368
Total	100.00	100.00	39,458,300	59,258,628,000	1,501.80
SUMMARY					
					Average
$2,000 a year or less	81.82	51.25	32,279,298	30,379,879,000	$941
$2,000 to $10,000 a year	17.35	35.97	6,848,262	21,312,256,000	3,112
Over $10,000 a year	.83	12.78	330,740	7,566,493,000	22,877
Total	100.00	100.00	39,458,300	59,258,628,000	1,501.80

Source: Consumer Incomes in the United States, compiled by the National Resources Committee, Washington, D. C.

It should be obvious that the amount of money required for food, clothing, and shelter per individual could not be very high where limited to the ordinary comforts and conveniences of a decent standard of living.

The problem of maximum production so as to provide an abundance of the comforts and conveniences of a decent American standard of living is the real problem. The above table shows that a high percentage of the American people are in truth underfed, underclothed, and undersheltered. The percentage of the people who received more than is required for the highest standard of living, and even luxury, is very small. Those receiving less than $2,000 a year per individual amount to 81.82 percent of the persons receiving incomes and averaged only $941 per year, out of which the family must be supported.

Individuals receiving over $10,000 a year represent only 0.81 percent of the persons receiving incomes. Persons receiving over $100,000 a year represent 0.01 percent, or 1 out of 10,000 workers, or 1 out of about 30,000 people.

It should be obvious that the remedy for the disparity in income is not to be found merely in super taxes on the highest incomes but in raising the incomes of the lower brackets through the employment of all the people and through raising the compensation of the workers in the lower brackets by increased wages and salaries. If they are employed to a maximum, the wealth which they would create would be more than sufficient to raise the consumers buying power to a high

standard of living without relying upon punitive super taxes on capital income.

The American capitalist system being based on the profit motive the great leaders in our economic life who produce through their genius and management need not be denied the accumulation of great wealth, which of necessity passes on to the service of the race at the death of the ambitious individual. The policy should not be to excessively tax the great industrial leaders but to expand the income of those who are engaged in production in the lower brackets.

This objective can best be achieved through congressional control of the volume of money and regulating the value of money so as to give it the same purchasing, debt-paying power from one generation to another.

Chapter XIV

THE PROBLEM OF UNEMPLOYMENT

The contraction of the money supply not only increases business failures and decreases individual and Government income but results in throwing millions of people out of employment compelling the Government to resort to various measures of relief and the expenditure of public funds on a colossal scale in order to protect the people from actual starvation and physical deterioration.

The National Industrial Conference Board of New York, representing the leading industrial organizations of the United States, has collected information with regard to unemployment. We insert their table showing the number of unemployed for the years 1929 to date.

Unemployment figures

Annual average:

1929	469, 000
1930	3, 849, 000
1931	8, 148, 000
1932	12, 516, 000
1933	12, 773, 000
1934	10, 523, 000
1935	9, 843, 000
1936	8, 159, 000
1937	7, 028, 000
1938 (June [1])	10, 981, 000

Unemployment figures—Continued.

[1] Preliminary.

Source: National Industrial Conference Board, Inc.

In estimating the need for an additional supply of money to prevent unemployment, these figures are of great significance, for they show that unemployment expands as the money supply contracts. The problem of unemployment is made worse by the fact that many who are listed as employed are employed on short hours in a limited number of days instead of working a maximum number of normal days and hours.

These figures on unemployment should be compared with the price level, representing the volume of money employed in the wholesale markets. There should also be a comparison between the check money actually employed in these years. Students will observe that as check money went down and as the volume of money went down in the wholesale markets employment went down. A table showing this comparison is here inserted for the years 1929 to June 1938:

The price level, check money, and unemployment

Year	Price level	Check money	Unemployment	Year	Price level	Check money	Unemployment
1929	95.2	$1,300,000,000	469,000	1934	74.6	$470,000,000	10,523,000
1930	86.8	900,000,000	3,849,000	1935	79.8	530,000,000	9,843,000
1931	72.1	660,000,000	8,148,000	1936	80.6	611,000,000	8,159,000
1932	63.9	450,000,000	12,516,000	1937	81.7	637,000,000	7,028,000
1933	65.0	430,000,000	12,773,000	1938 (June)	88.0	[1] 530,000,000	10,981,000

[1] Estimated for 1938.

Source: Board of Governors of the Federal Reserve System.

It is thus perfectly obvious that these figures demonstrate that as the money supply is contracted employment is contracted and as the money supply is increased employment increases.

The remedy, therefore, for unemployment is to frankly recognize the shortage of the money supply and to expand the money supply through the Federal Reserve banks by authority of the Government, without penalizing those who ignorantly or innocently contract our money supply.

THE UNEVEN DISTRIBUTION OF MONEY

Naturally, in a great industrial nation where immense corporations are built up and financed in great financial centers, there would be a tendency to attract the accumulation of wealth and a larger supply of the money of the country to such centers because the profit arising from factory production flows back to the centers where these corporations have their central offices.

It results therefore in an uneven distribution of the money supply and diminishes the purchasing power of those communities from whom the purchasing power is thus withdrawn by profits, interest, insurance premiums, etc. The United States Government has, through its departments and its various bureaus of research, ascertained the substantial facts in regard to this matter.

The profit of a corporation is an actual withdrawal from the ultimate consumers of money held by the consumers, and such profit leaves the domicile of the consumer and goes to the head office of the manufacturing corporation. This profit means a transfer of local demand deposits to the industrial center at the expense of the money supply of the consumers. Unless the farmers receive from consumers of agricultural products a profit sufficient to supply the local money needs, the buying power of the farmer is cut off to that extent, to the injury of the city factory, depriving it of a needed market for machine production.

In 1920 agricultural products reached a high price because of the scarcity of agricultural products produced by the World War and the superabundance of money created by the World War through bond issues. When the contraction of credit and currency took place in 1921, it removed the factor of money abundance while the scarcity of agricultural products had been substantially corrected. This resulted in the market price of agricultural products falling to less than half of what they had been.

In 1932 the depression of agricultural prices was extremely severe due to the contraction of the money supply accompanied by an abundance of agricultural products.

The farmer always suffers in the selling price of his products more than the manufacturers because the manufacturer can control the price of his own products and hold them in storage awaiting a fair price and can regulate the volume of his products. The manufacturers are highly organized and well financed. The farmers are not organized, are not capable of being easily organized, are not well financed and their products go upon the domestic market and upon the foreign market in keen competition with the products of the farmers of the whole world.

Due to these causes the farmers always suffer more in a depression than other producers.

It is for the above reasons that the farmers should be more deeply interested in stabilizing the value of money through the regulation by the Government of the volume of money.

The farmers of the country, who represent approximately 21 percent of the labor of the country, have not been receiving 21 percent of the national income, although it is notorious that the farmer must give almost his entire time, from morning until night, in the cultivation of his fields and in the conduct of animal industry. It is of interest to note what the income of the agricultural classes has been in comparison with the national income. For that reason there is here submitted a table showing the income of the farmers and stockmen, as compared with the income of the Nation for the years 1929 through 1934.

The national income and the income of the farmers from 1929 to 1934, inclusive, were as follows:

HOW THE FARMERS HAVE SUFFERED

Year	National income	Agricultural income	Percentage	Year	National income	Agricultural income	Percentage
1929	$78, 576, 000, 000	$6, 157, 000, 000	7.8	1932	$47, 964, 000, 000	$3, 192, 000, 000	6.7
1930	72, 973, 000, 000	4, 595, 000, 000	6.3	1933	44, 431, 000, 000	2, 993, 000, 000	6.7
1931	61, 433, 000, 000	4, 271, 000, 000	6.9	1934	49, 440, 000, 000	3, 299, 000, 000	6.6

When the contraction of credit and currency took place in 1921 it had the effect of depressing the price of farm commodities and the value of farm lands and also making it more difficult for the farmers to meet their debts in the form of mortgages.

The depression of 1921 reduced the market value of the lands of the agricultural class $20,000,000,000. An index of the wholesale prices of a few of the principal farm commodities is here submitted to show the manner in which all farm prices were affected by the contraction of credit and currency (see p. 36).

The extent to which those engaged in agriculture have been compelled to mortgage the farms upon which they live is shown for the various States in the following table:

Farms mortgaged

State	Farms mortgaged	Percent mortgaged	State	Farms mortgaged	Percent mortgaged
Mississippi	261,000	83.7	Oregon	32,000	59.6
Oklahoma	163,000	80.4	Delaware	5,000	58.6
Alabama	202,000	78.9	California	79,000	58.3
Georgia	199,000	78.2	Washington	40,000	57.7
North Dakota	60,000	78.2	New Jersey	14,000	57.6
Louisiana	125,000	77.6	Vermont	14,000	56.4
South Dakota	64,000	77.4	Michigan	95,000	56.2
Iowa	166,000	77.3	Utah	15,000	55.9
Nebraska	99,000	77.2	Maryland	23,000	53.4
Arkansas	186,000	77.0	Massachusetts	13,000	53.1
South Carolina	121,000	76.7	Connecticut	9,000	52.7
Texas	377,000	76.1	Ohio	113,000	51.9
Kansas	119,000	71.9	New York	82,000	51.7
Colorado	40,000	67.9	Kentucky	126,000	51.4
Minnesota	125,000	67.8	Nevada	1,000	46.3
Idaho	27,000	67.1	Florida	26,000	44.9
Illinois	141,000	66.2	Virginia	75,000	44.3
Missouri	169,000	66.1	Pennsylvania	75,000	43.9
Wisconsin	119,000	65.9	Rhode Island	1,000	43.4
Montana	30,000	64.5	Arizona	5,000	41.8
North Carolina	176,000	63.2	New Hampshire	5,000	38.4
Wyoming	10,000	62.5	New Mexico	12,000	38.4
Indiana	111,000	61.4	Maine	13,000	35.1
Tennessee	147,000	60.2	West Virginia	26,000	32.6

In the above table was a very large number of farms of 3 acres or less, which were not mortgaged. Except for this fact the percentage of larger farms under mortgage would have been substantially higher.

The total value of the farms in 1935 was about $32,000,000,000. The value in 1920 was $67,000,000,000.

The estimated debt on these farms in 1934 was $9,500,000,000, and because of foreclosures and other forced transfers to other purchasers of 1½ billions, the debt remaining is about $8,000,000,000 for 1935.

Source: Hearings before the Committee on Agriculture and Forestry, U. S. Senate, 75th Cong., on Farm Commodity Prices, June 7, 8, and 9, 1937.

As an evidence of the uneven distribution of bank deposits we submit the following table, showing how much poorer some States are than others in the way of an adequate money supply to carry on their local business:

Check money, by States, October 1934

States	Percentage of insured deposits, in number	Percentage of insured deposits, in value	Dollars per capita of insured and uninsured demand bank deposits	Dollars per capita of insured bank deposits of $5,000 and under
Alabama	99.3	59.7	$26.61	$15.88
Arizona	98.6	59.0	46.71	27.55
Arkansas	99.0	63.5	23.29	14.84
California	97.9	52.5	123.41	64.79
Colorado	98.7	52.8	95.16	50.24
Connecticut	98.4	50.8	107.10	54.40
Delaware	97.4	46.7	200.02	93.40
District of Columbia	98.7	53.6	220.24	118.04
Florida	98.9	50.8	56.14	28.51
Georgia	99.1	50.6	39.38	19.92
Idaho	98.8	66.2	46.14	30.44
Illinois	98.4	37.2	152.30	56.65
Indiana	99.1	60.3	56.32	33.96
Iowa	99.1	64.9	63.43	41.16
Kansas	99.1	61.4	76.68	47.08
Kentucky	99.1	63.9	47.69	30.47
Louisiana	98.9	45.5	48.52	22.07
Maine	98.9	73.6	53.46	39.34
Maryland	98.6	45.8	90.98	41.66
Massachusetts	97.9	28.8	170.73	66.23
Michigan	98.8	51.6	61.03	31.49
Minnesota	98.8	53.6	79.90	42.82
Mississippi	99.0	65.6	21.10	13.84
Missouri	98.7	44.1	138.22	60.95

Check money, by States, October 1934—Continued

States	Percentage of insured deposits, in number	Percentage of insured deposits, in value	Dollars per capita of insured and uninsured demand bank deposits	Dollars per capita of insured bank deposits of $5,000 and under
Montana	98.2	63.7	$64.54	$41.11
Nebraska	98.8	57.7	82.46	47.57
Nevada	98.2	63.0	83.64	40.09
New Hampshire	[1] 98.9	[1] 66.6	54.95	36.59
New Jersey	98.7	63.7	92.65	59.01
New Mexico	99.0	63.8	31.36	20.00
New York	97.2	23.7	406.60	96.36
North Carolina	99.0	51.1	28.75	14.69
North Dakota	99.2	78.7	31.33	24.65
Ohio	98.9	56.1	71.68	40.21
Oklahoma	[1] 99.0	[1] 47.6	59.50	38.32
Oregon	99.0	63.5	66.55	42.25
Pennsylvania	98.6	46.7	134.20	62.67
Rhode Island	98.2	54.0	112.39	60.69
South Carolina	99.0	58.2	21.56	12.54
South Dakota	99.1	71.9	43.96	31.53
Tennessee	99.1	53.5	42.14	22.54
Texas	98.7	48.5	81.27	39.41
Utah	98.7	56.2	55.03	30.92
Vermont	99.0	84.1	48.94	41.15
Virginia	99.1	61.9	55.99	34.64
Washington	98.6	53.5	67.30	36.00
West Virginia	99.3	65.7	47.80	31.40
Wisconsin	99.1	65.6	55.97	36.71
Wyoming	99.0	68.3	60.67	41.43

[1] Excludes figures of 1 State bank member of Federal Reserve System.

Source: Hearings before the Committee on Agriculture and Forestry, U. S. Senate, 75th Cong., on farm commodity prices, June 7, 8, 9, 1937.

The total amount of insured demand bank deposits in small accounts of $5,000 and under in December 1936 was only 5.5 billion dollars. There were, roughly, 14.5 billion dollars in large accounts (insured only up to the first $5,000). The 14.5 billion dollars in large accounts is held by only 2 percent of the bank deposits in number. The other 98 percent in number must get along on only 5.5 billion dollars to transact their business.

It must be remembered, however, that the great corporations represent a large number of stockholders, and that these corporations do employ their uninsured demand deposits in transacting their own business.

Students will observe from these tables that there is an uneven distribution of the money supply and that this accounts in substantial degree for the inability of some sections and classes to buy freely of factory production, and therefore prevents maximum production by the factories of the country.

If the Government, through Congress, was regulating the volume of money, the new money annually required to meet the increase in industrial production could be so distributed among underprivileged classes and sections, where buying power is lacking, as to build up gradually a buying power that would be most beneficial to the expansion of our industrial production in the cities. It is now generally recognized that the welfare of those who produce in the cities is intimately bound up with the welfare of those who produce outside of the cities; and that the success of the one is vital to the success of the other.

MONEY IN RELATION TO DEBT

The indebtedness of the people of the United States, governmental, corporate, and individual, is estimated variously at around $250,000,000,000. It therefore follows that the indebtedness of the Government, incurred during the World War when credits were expanded and the dollar index went down to 60, has become a greater burden on the taxpayers, as this dollar has risen to its present purchasing power of 130. The same thing is true for the debts of all the States, counties, and cities. The same thing is true for the debts of corporations and individuals.

The most grievous burden which afflicts the economic life of the people of the United States is this enormous burden of debt of the people to each other. It paralyzes the Nation and prevents the full expansion of economic life.

The increased purchasing power of money is therefore an affliction to people who have loans on their farms, or city property, or homes; and upon all people and corporations who have borrowed money on bonds. It makes more difficult the payment of debt, and it has been proven to be grossly unfair and ruinous to the debtors.

It has made it more difficult for the European nations to pay their debts to the United States. They have been compelled to humiliate themselves by advising the United States Government that they were not able to meet the indebtedness incurred during the World War, to the great injury of the American people who had relied with confidence upon the payment of the European debts to the United States.

It has compelled the foreclosure of hundreds of thousands of mortgages.

It has bankrupted millions of people and contributed to the unemployment of the Nation.

The demand to restore the purchasing power of money back to the 1926 price level has been justified by the relation of money to debt, because 1926 had a dollar whose index of purchasing power was substantially the same as the average dollar index of 1921–29, inclusive, and also the same, approximately, as the average for the years 1914–30, inclusive.

The relation of money to debt must be considered in establishing justice between debtor and creditor. It is an error to think that the creditor always profits at the expense of the debtor through the sale of the debtor's property, for the bankruptcy of the debtor, the destruction of his earning power, and the destruction of the value of the property of the debtor often injures the creditor in the most serious manner. The interest of debtor and creditor alike will be served by restoring the money supply to a normal, predepression basis and thereby increasing the production and the income of all the people.

THE INTEREST ON DEBT

Under the capitalist system all of the States of the Union, and the United States as well, have passed laws legalizing rates of interest, running from 6 to 10 percent.

These rates have been made greater on the debtor in many cases by applying the rate discounts. They have been made greater often by charging commissions, directly or indirectly, upon the borrower.

They have been made greater by requiring the borrower to keep on deposit a substantial part of the loan he makes.

There are other devices and practices to the disadvantage of the borrower. This is one of the penalties which naturally flow from turning over to privately owned corporations and banks the creation of our money and a practical monopoly of our money supply; and the power of the banks to contract the money supply and thereby increase the burden on the debtor, whose income and whose property is diminished in value by the process of contracting the volume of money.

We see the term "easy money" employed. This term is employed even by our highest officials on the Federal Reserve Board. What is meant by "easy money" is merely the low rate of interest which is charged in New York City and elsewhere by the banks in lending money to the United States on the purchase of bonds and notes of the United States by the banks, or from other borrowers whose credit is beyond question; it does not mean the average borrower throughout the United States, who has borrowed money on the farm, for instance, as a means of financing production on the farm, nor in the local factory.

It is, therefore, of the greatest importance to observe a change taking place throughout the world as one of the results of the depression, and as one of the results of increasing intelligence with regard to the importance of promoting production and employment by means of money supplied at low interest rates.

In this connection attention is called to the fact that Great Britain for over 6 years has been furnishing money for industry and commerce at an unbroken rate of 2 percent per annum, while the normal rate throughout the United States is probably three times this amount.

Attention is called to the present current rates in Europe. The Federal Reserve Bulletin of November, 1938, page 1025, has a table on money rates in foreign countries. The private discount rate in Switzerland has been 1 percent since August 1937; in the Netherlands it has been 0.14 percent; in Belgium it has been about 1.50 percent; in France it has been 2½ to 3 percent; and it has been 2.88 percent in Germany.

Against these interest rates the United States must compete.

In Canada the Canadian Government has taken over the National Bank of Canada and has authorized 2-percent loans to be made to the municipalities of Canada by the national bank.

On page 998 of the November Federal Reserve Bulletin appears the following rates in New York for the past year:

Prime commercial paper has been 1 percent and three-fourths to 1 percent; prime bankers acceptances have been at seven-sixteenths percent; stock exchange time loans have been 1¼ percent; stock exchange call loan renewals have been 1 percent; and United States Treasury bills (short-term loans) had a rate of only 0.03 percent for the week of October 22, 1938.

These rates merely signify that the enormous accumulation of cash capital unemployed is being loaned in this manner at an extremely low rate. It does not mean that the ordinary man employed in agriculture, in stock raising, or in local manufacturing can borrow money for production and the carrying of inventories at these rates, or have any assurance that such loans will be carried from year to year while he is engaged in the processes of production. It is another evidence of the maldistribution of money.

It points out that the instability in the cost of the use of money is one of the most serious elements indicating the instability of the monetary system of the United States. It demonstrates the importance of the Congress of the United States reviewing the whole question of the laws fixing the rates of interest in the United States and considering the question as to fixing a rate which will make possible the ultimate accomplishment of the abolition of debt and the payment of interest by those who are engaged in producing the commodities and services which are necessary to the enjoyment of life by the American people.

LABOR AND MONEY

Without money, the compensation for labor and services would necessarily be by barter. The labor of many people is compensated by barter in very large part, such as the labor on the farm where shelter and food is furnished in exchange for labor. Millions of housewives and dependents in the household receive food and shelter in exchange for domestic services.

The wages paid to labor by industrial enterprises are paid in very large part in money, and labor is organized in labor unions with the right of collective bargaining as a means of securing a more just compensation. These labor unions are organized into the American Federation of Labor, the Committee on Industrial Organization, and in other organizations. There are many farm organizations such as the National Grange, the American Federation of Farm Bureaus, the National Educational and Cooperative Union of Farmers, and the National Cooperative Council (representing about 4,000 farm organizations and 1,200,000 dues-paying members). Many other organizations exist having in view the protection of their members who labor.

In our industrial life those who manage the capital invested naturally try to keep down the cost of the articles manufactured and, therefore, often drive hard bargains with those who labor, making it necessary for the Government to pass laws for collective bargaining, and other processes, through which labor may be better protected in the matter of wages and salaries and safety in employment. Labor suffers severely from booms and depressions, which result in millions of men and women being suddenly thrown out of employment and kept out of employment month after month and year after year. In 1932 the unemployed rose to 14 millions and was about 11 millions in 1938. One million two hundred thousand adults are added annually to the columns of those who are qualified for labor and who need employment.

It, therefore, is of supreme importance that the Congress of the United States should have a wise monetary policy that would give stability to the volume of money employed in our industrial life, and by which wages and salaries are paid, and by which those who produce receive the money with which to buy, as consumers, the products of the labor of others. The volume of this money must constantly rise in order to supply an adequate volume to provide a medium of exchange for the products and services of 1,200,000 adults annually entering the fields of labor. It is of importance not only to furnish an adequate supply of money through the powers of Government but to prevent the indefensible expansion and contraction of money which results in depression and unemployment. It is of impor-

tance to have stability of employment so that those who labor shall receive a reasonable annual living wage, and so that those who employ labor may make contracts which will run, not day by day or week by week or month by month, but from year to year with as little instability as possible.

The lack of stable, permanent employment compels laborers to demand higher prices for their labor when their employment is for comparatively short periods of time. This accounts for the complaint often lodged against labor when the labor unions fix wages at a price deemed too high. Such arbitrary high figures have a necessary tendency to prevent the building of houses for the shelter of labor.

The national policy of Government should be directed to stabilizing employment. Stability of employment depends upon stability in the medium of exchange. There must be an adequate supply of money, neither too little nor too much, and only the Government with its financial power and legal authority can accomplish this end.

By brain or by brawn, practically all of the people of the United States labor and are producers and consumers. A man of wealth directs the employment of his wealth, but as a consumer he draws no more in food or clothing than millions who are not wealthy. The accumulated wealth is distributed by law as the men of wealth die.

ABUNDANCE OR SCARCITY?

It is a grave fallacy to believe that scarcity is unavoidable or that abundance for all is unattainable because scarcity afflicts millions of people in a land of unlimited natural opportunities. Many men believe and have been taught to believe by suffering that scarcity is unavoidable; that there is a necessary limitation on the demand for labor; that many must of necessity go unemployed; that, therefore, the demand for employment should be distributed by a fewer number of working days and by a shorter number of working hours. A fewer number of working days and shorter hours will be justified when the American people shall have fully developed and fully employ the machines their inventive genius has developed, and the power produced through coal, petroleum, water power, and electricity. This objective has not been achieved.

But until abundance for all is produced and full employment is provided through an adequate supply of the medium of exchange, the energy and intelligence of statesmen should be directed toward furnishing an adequate medium of exchange for the transfer of maximum products and services of the people to each other.

Labor leaders have had the artful appeal made to them that a rise in the index of the price level means a rise in the cost of living. This means this argument opposes a rise in the volume of the money required to create abundance and to create a larger volume of products. This argument has been shown heretofore to be entirely fallacious because as the money supply rises employment and wages increase and of course the products increase in volume as labor increases in the number employed. When the volume of money and the volume of commodities rise together, as they do, the purchasing power of money remains unchanged and the average price of commodities remains unchanged as far as money is concerned.

In Loeb's "Chart of plenty," which had its origin in the Department of Commerce and the labor of a number of experts, it has been demonstrated beyond the possibility of successful contradiction that with the existing machinery, technological processes, manpower, organization, increase of electrical energy, and our natural resources the people of the United States could easily produce $130,000,000,000 annually, if they were fully employed. This chart should be studied by patriotic men who desire our country to reach the highest standard of living for all of the people. It should be studied by those who desire to end human misery in the United States. It should be studied by those who desire equality of opportunity for the children who are daily born into the world. It should be studied by those who desire the farmers of the United States to have a fair reward for the hard labor they perform. It should appeal to those who have been disturbed by the growth of organizations based on discontent and which not only has caused a widespread demand for the protection of the weak and defenseless by the Federal Government, but has also caused the growth in this country of subversive organizations which regard democracy as incapable of giving all of the people sufficient food to live on.

There was a great leader who proclaimed his purpose in entering the world that He came to bring life, and life more abundantly. He told His disciples the first means by which to accomplish it. As I remember it, He said, "Seek ye first the Kingdom of God and His righteousness and all these things shall be added unto you."

National prosperity and abundance cannot be founded on blind selfishness. It must be founded upon the doctrine which declared, "Thou shalt love thy neighbor as thyself."

MONOPOLY AND MONEY

For many decades the people of the United States have been endeavoring by law to control the unfair exactions of monopolies in our industrial life. The Sherman Antitrust law imposed severe penalties for the restraint of trade by our powerful industrial organizations. But in the test cases brought the Supreme Court held that Congress only intended to forbid and penalize unreasonable restraints of trade. This decision imposed upon the complainant the responsibility and necessity of proving that the restraint complained of was unreasonable and left the question of reasonableness to be determined by the judiciary. This made the law ineffective. Naturally, great and powerful combinations, with enormous capital and great resources, can monopolize the supply of raw materials needed in mass production and can obtain special advantages in many ways which makes successful competition almost impossible.

Such monopolies can fix the price of their products so that when depressions come and the dollars become very scarce, the products of monopoly are more costly to the consumers in terms of their own products, which are subjected to a severe lowering of price in the markets due to money scarcity. This profoundly afflicts the farming population of the country as well as the dwellers in the cities.

Recently in the beginning of 1937 we witnessed the price of copper rise from 9 to 17 cents a pound because the supply of copper was controlled by monopoly. In this manner the increase of such products in

price arbitrarily had the immediate effect of obstructing the natural reaction from depression which otherwise was taking place.

No mere monetary policy can prevent the copper producing companies from charging what they please. It is true that they operate by public charter, that they employ the public mails and transportation system, and all the facilities for marketing provided by the public and the services of other citizens. It is also true that as yet no public control has been established to adequately control the abuses of monopoly, or to establish a completely fair competitive system. The correction of such practices and abuses lies outside of the question of monetary science. Monetary science must confine itself to the public control of the volume of money and the regulation of the value thereof. This duty has been imposed by the Constitution of the United States on the Congress of the United States.

ONE HUNDRED PERCENT RESERVES

It has heretofore been pointed out that the power of the privately owned banks, State and national, to expand the money supply by loans and contract the money supply by liquidating the loans, or requiring the loans paid has been the means of repeated booms and depressions in the United States.

In order to put an end to this destabilizing influence and power, many economists now believe with Prof. Irving Fisher of Yale that the national and State banks should be required to have 100 percent reserves with the Federal Reserve banks against their demand bank deposits. The effect of this would be:

1. The inability of the banks to cause booms and depressions by the indefensible expansion and contraction of credit.
2. The absolute stability in the security of the demand bank deposits all of which could be liquidated instantly on the demand of the demand bank depositors.
3. By this method the banks would have perfect security against the possibility of any sudden demand.
4. The banks would still have the money arising from savings accounts and time deposits which they could invest, or could loan for business purposes.
5. The banks would still have the right to obtain loans from the Federal Reserve banks or sell to the Federal Reserve banks commercial bills and real estate loans on long time.
6. The banks of course would have the earnings from handling deposit accounts, both as to number and in the volume of such accounts.
7. The banks would have stability in the solvency of their borrowers and stability in the value of their investments, and would automatically cease to finance speculative operations on the security and commodity exchanges under a properly ordered system.

In addition to these advantages to the banks the United States would have the advantage of acquiring through the Reserve banks the United States bonds, which the banks and public hold, by the payment of these bonds when they fall due or are sold to the Reserve banks in credit of the Federal Reserve banks. Under this system the Federal Reserve banks would gradually acquire the public debt, save the interest on such bonds and the amortization charges, and therefore greatly facilitate the balancing of the Budget.

The 100-percent reserves required against the demand bank deposits would make it impossible for the banks to create an inflation of the money supply of the United States with its destabilizing influence. The banks at present have in cash and bonds a 100-percent reserve against their demand deposits.

Chapter XV

THE CALL RATE ON THE SECURITY EXCHANGES

The call rate on the New York Stock Exchange was exempted by statute of the State of New York from the rule forbidding an interest rate above a fixed rate in cases where the loans were $5,000 and up, and secured by stock market collateral. Thus, generally, there was no limitation on the rates of interest charged for call money.

One of the most potent causes of the instability of credit and money was the uncontrolled call rate on the New York Stock Exchange.

In the fall of 1907 this rate went up to 100 percent. In the fall of 1919 it went up to 30 percent, after the Federal Reserve Board called upon the banks in New York to liquidate their loans from the Federal Reserve banks.

The effect of this high call rate was to create the general impression throughout the country that money could not be obtained, even on call where it could be liquidated in 1 day, except at a high rate. This naturally and necessarily disturbed the confidence of the whole country in the stability of our credit structure.

The Brookings Institution published a work by Owens and Hardy "Interest Rates and Stock Speculation" on the effect of the call money rate on deterring speculation, or encouraging reaction from depression. This work demonstrated, citing six major and minor depressions, that a high rate of interest did not deter speculation on the stock market and did not restore credit to normal during a depression.

The effect of a 6 percent rediscount rate of interest imposed by the Reserve banks in 1929 was to notify the businessmen of the United States through the media of the banks, that the banks could not obtain money from the Reserve banks and lend it to their customers, except at a loss, because the banks were forbidden by law to lend money at above 6 percent. It was estimated that it cost the banks 1.3 percent on the average, for making and collecting loans. So, unless they could charge at least 7.3 percent on their loans, they would be losing money.

The attention of students is invited to the call rate on the New York Stock Exchange for the years 1926 to 1937, inclusive.

Call rates on New York Stock Exchange

	Percent		Percent
1926	4. 50	1932	2. 05
1927	4. 06	1933	1. 16
1928	6. 04	1934	1. 00
1929	7. 61	1935	. 56
1930	2. 93	1936	. 91
1931	1. 74	1937	1. 00

Source: Board of Governors of the Federal Reserve System.

While the average for 1929 was only 7.61 percent for the entire year, the rate actually went up to 20 percent at critical periods during the year, greatly destabilizing the credit structure of the United States and creating the impression that even on the finest security, which could be sold within 24 hours, the use of money was worth 20 percent per annum, and that money under any conditions was extremely difficult to get. The truth was, and is, that the United States and the Federal Reserve banks have had the power at any time to expand the money supply to meet the necessities of the country by converting nonliquid securities into money through purchase.

The effect of a high call rate on the New York Stock Exchange was to invite money from every bank in the United States, because such loans were abundantly protected by margin. They were easily made through correspondent banks in New York City and they were profitable and safe. The result, however, of such loans was to expand credit indefensibly, unjustifiably, and unwisely in the security exchange and to make money scarce in the home bank, where production and local industry had to get their money. The effect also was to inflate the value of the securities being marketed by the great industrial corporations between 1921 and 1929. The inflation of stock prices thus created naturally resulted in a crash in the stock market when the big operators in stocks determined to sell their stocks and the public finally discovered it.

It is an open secret that in July 1929 certain great houses marketed their securities and loaned the money freely on call to less sagacious operators who did not realize the threatened reaction which was in sight to those who had greater vision.

Thus the high call rate, followed by the raising of the rediscount rate by the Federal Reserve Board and the Federal Reserve banks, contributed to the collapse which took place in 1929 and the vicious downward spiral which followed.

When the collapse in the stock market took place and the violent contraction of credit occurred, a wave of pessimism swept the country. Consumption diminished within less than 12 months by 25 percent.

The monthly Federal Reserve bulletins show all the figures as to the expansion and contraction of the money supply and economic effects thereof. Students are referred to these bulletins for confirmation and detail.

THE CONTROL OF THE SECURITY EXCHANGES

It was the recognition of these truths which caused the Congress of the United States to regulate the security exchanges by law, and to put the Federal Reserve banks under more rigid control by the Federal Reserve Board, in order to enable the Government to determine the margins required in stock operations, to forbid member banks from acting as agents in making loans on call for other banks, and to require the strict supervision of the security exchanges.

The old maxim "Let the buyer beware" was modified by a new rule, "Let the seller also beware."

The control of the security exchanges is tending to abate the recurrence of stock-market booms and crashes, and to partly stabilize the credit and business structure of the United States, but is by no means sufficient to give complete stability.

Chapter XVI

THE INFLATION BOGEY

It would be a grave error for students of modern monetary science to ignore, or to overlook, the fact that the establishment of the principles of modern monetary science is skillfully opposed by the advocates of the old system under which we have suffered. We have not all suffered. Some of our people have become enormously wealthy under the old system, during which monopoly has flourished and bull movements and bear movements have been caused in security exchanges by skillful propaganda.

It would be unintelligent to ignore the fact that there are some people who know how to make money on a large scale, through bull markets and bear markets, and that this money is made not by creating wealth, but by acquiring wealth under operations in the security exchanges where the sagacious few know how to make money at the expense of others. The general public, through propaganda, is induced in bull markets to make the attempt to acquire wealth by speculation without creating it by labor and services.

In depressions, which follow inflations, the sagacious few who have acquired available credit can profit by buying property below its normal value.

The old system is vigorously defended. Its advocates and defenders fill the American press with articles dealing with the question of our economic life in which they attribute the evils arising under the existing system to many other causes than the real fundamental cause. Modern monetary science exposes the real cause beyond the possibility of doubt or successful contradiction. But the advocates of the old order, minimize or denounce monetary causes as being responsible for our national distress. The purport of these various articles seems to be to warn the Members of the Senate and House of Representatives and the people against "tinkering with the currency," against "fiat" money, against "printing press money," and against the dangers of "inflation." The experience of Germany following the World War is pointed out as a terrifying example, in which inflation resulted in the destruction of the value of bank deposits, bonds, insurance policies, mortgages, and other evidences of debt, by reducing the German mark to zero value through the inflation of the German mark billions of times.

The term "inflation" has thus been built up as a bogey warning the people against any necessary expansion by using the term as equivalent to a defensible and necessary expansion of the money supply.

These advocates of the old system (which has continuously reproduced one depression after another) seem to rely upon the lack of an informed public opinion. They frighten the people by the bogey of "inflation" as if the advocates of modern monetary science proposed "inflation." Modern monetary science vigorously opposes "inflation." It vigorously opposes the "inflation" which has been employed by the sagacious few to profit and to acquire the wealth of the ignorant many.

Modern monetary science proposes an adequate plan by which to prevent inflation for all time.

Inflation is the indefensible expansion of credit and currency. Inflation produces an unsound currency and destroys the uniform, permanent, debt-paying purchasing power of money, which is the chief objective of modern monetary science.

Both of the great political parties in the United States have expressly promised in their national platforms and have demanded a "sound currency at all hazards."

Democratic national platform in 1932:

We maintain that the depression of 1920 and the depression of 1929 were due to the indefensible contraction of credit for private profit at public expense and we pledge the Democratic Party to preserve a sound currency at all hazards. The Democratic candidates pledge their endorsement of this platform 100 percent. We promise to restore property values and to endeavor to establish a dollar of uniform permanent debt-paying power.

Democratic national platform in 1936:

We approve the object of a permanent sound currency stabilized so as to prevent the former wide fluctuations in value, injuring in turn, the producers, debtors, and property owners, on the one hand, and wage earners and creditors, on the other—a currency which will permit full utilization of the country's resources.

Republican national platform, 1932:

We pledge a sound currency at all hazards. We will restore to the Congress the authority lodged with it by the Constitution to coin all money and regulate the value thereof.

Republican platform for 1936:

We advocate a sound currency to be preserved at all hazards.

* * * * * * *

We will restore to the Congress the authority lodged with it by the Constitution to coin money and regulate the value thereof * * *.

Progressive Party platform, 1938:

The ownership and control of money and credit, without qualification or reservation, must be under public and not private control.

Farmer Labor Party platform, 1934:

Congress shall exercise the constitutional power to coin money and to regulate the value thereof.

Modern monetary science proposes a plan to establish this sound currency. The only sound currency is a currency whose debt-paying, purchasing power shall remain the same from one generation to another. It is a currency which shall be equally fair to the creditor and the debtor. It can only be obtained by the exercise of the constitutional power of the Congress of the United States to regulate the value of money by regulating the volume of money.

The advocates of the old system, which fed upon inflation and unsound money, have made many people believe that nobody understands what makes the value of money. Modern monetary science has demonstrated that this theory has no foundation of fact, but is a part of the propaganda which has served to prevent the establishment of the principles of modern monetary science, by which sound currency can be established and through which the indefensible expansion and contraction of credit shall be ended by Government power through a legislative mandate of Congress. Modern monetary science proposes a legislative mandate establishing a sound modern monetary policy of government, by Congress, with the machinery necessary to make it effective.

Chapter XVII

THE CONSTITUTION OF THE UNITED STATES ON MONEY

One of the contributing causes of the Declaration of Independence was the action of Great Britain in forbidding the Colonies to issue money and compelling the people to buy English money with their products in order to have a legal medium of exchange.

When the Colonies fought the Revolutionary War they emitted colonial paper money not supported by adequate law. This money ultimately proved to be worthless because not backed by the power of taxation. Nevertheless, the money issued by the Colonies comprised a vital force to enable the Colonies to successfully carry on the War of the Revolution.

When the Constitution of the United States was established the members of the Constitutional Convention were perfectly well aware of the importance of establishing the right to create money as a sovereign right of government. They, therefore, in the Constitution forbade the States to create money and, broadly, through the powers of the Constitution, gave the right to create money exclusively to the Congress of the United States. And they gave explicit directions to Congress in article I, section 8, paragraph 5 "* * * to coin money and to regulate the value thereof * * *" (*Legal Tender cases*).

The Government of the United States in the beginning was weak. The Members of the Senate and House did not realize the great powers given by the Constitution. The Congress contented itself with passing an act declaring the dollar and its decimal parts to be the monetary unit of account in the United States, and authorized the coinage of gold and silver of a given weight and fineness as dollars.

Those who understood the power of a privately owned bank to create money, and were familiar with the Bank of England and its power of creating money, obtained a charter from the Congress to establish the Bank of the United States. But the bank fell into disfavor and renewal of its charter was denied. A second Bank of the United States was established and the renewal of its charter denied by the Congress.

Individual small banks grew up out of the need of the people for a larger supply of money than was afforded by the currency issued by the Congress of the United States These banks created money in the form of demand bank deposits by loans and they also issued paper money. But Congress during the Civil War imposed a tax of 10 percent annually upon this paper money issued by the privately owned banks. In 1861, under Abraham Lincoln, Congress issued legal tender paper money as a means of carrying on the Civil War. This legal tender money was a means of saving the Union.

Lincoln thoroughly understood the constitutional right of Congress to exclusively create money and to regulate the value thereof. An abstract of his views is given by McGeer in Conquest of Poverty. The views of Lincoln are of surpassing importance. McGeer's abstract will be found in the appendix.

This power was vigorously resisted by the privately owned banks, and the opposition to President Lincoln were able, due to the stress of the war, to put through a national banking system, by which a

national bank, privately owned, was authorized to issue paper currency secured by United States Government bonds. These banks were put under the supervisory control of the Government.

These privately owned banks, and banks chartered by the various States, also privately owned, became the chief source by which money was created in the United States. These banks served the country well, notwithstanding periodic depressions due to an inherent weakness in the system. This weakness was the uncontrolled power of the banks and their borrowers to expand and contract the volume of money, as heretofore described.

In 1913 the Federal Reserve System was established, which required all member banks of the System to keep their principal reserves with the district reserve bank, thus concentrating the reserves in a banking system supervised by the Government through the Federal Reserve Board.

Great powers were given to the Federal Reserve Board and to the Federal Reserve banks.

The powers to expand credit were employed through these banks in such a manner as to finance the World War without serious difficulty.

Since that time, by amendments, the System has been greatly strengthened, giving the Board of Governors of the Federal Reserve System the power to control the interest rate, to control the expansion and contraction of credit, and to dominate the so-called Open Market Committee.

All money has been made legal tender, gold has been removed from our domestic circulation, and the Board of Governors have the power to buy and to sell bonds through the Federal Reserve banks. The Congress, notwithstanding these important improvements, has failed to regulate the value of money as required by the specific terms of the Constitution. The Congress has not passed any act instructing the Board of Governors of the Federal Reserve System or the Federal Reserve banks as to the duty of regulating the value of money, or laying down any standard or plan by which it could be accomplished, beyond imposing the duty of using the powers of the System to serve the interests of commerce and industry.

President Wilson, like Lincoln, understood the constitutional power of Congress to create and regulate the value of money. It was due to him and to his administration that the Federal Reserve Act was passed with this broad objective.

The Congress has given a great deal of attention to the problem. When the Federal Reserve Act was under discussion, 3,000 pages of testimony was taken from the leading financiers and businessmen of America. In 1924, 1926, and 1932 special investigations were made by the House of Representatives with regard to regulating the value of money. On May 2, 1932, the House of Representatives passed a bill which declared the monetary policy of the United States and the means of its execution.

This act declared it to be the monetary policy of the United States to restore and maintain the purchasing power of money as it had been ascertained by the Department of Labor for the average of the years 1921–29. The act further required the Secretary of the Treasury, the Federal Reserve Board, and the Federal Reserve banks to make effective this policy.

It failed in the Senate, but the study of this question by the House has continued. There are at present pending in the Congress a number of bills proposing to perfect the Federal Reserve Act which contemplate a national monetary policy declared by Congress in pursuance of the Constitution.

The present administration, under Franklin Delano Roosevelt, has recognized the soundness of the views of Lincoln and Wilson and declared the great objectives of establishing a dollar whose debt-paying, purchasing power should remain the same from one generation to another, and to restore the predepression price level. These objectives can only be achieved by clearly recognizing the constitutional power and duty of Congress to exclusively create and regulate the value of money.

THE POWERS OF THE BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

The Federal Reserve Act, approved December 23, 1913, intended to give to the Board of Governors (then the Federal Reserve Board, the name was changed to the Board of Governors of the Federal Reserve System in 1935) supervisory power over the member banks of the System so as to control the flow of credit, or the creation of money in the form of demand deposits by public and private loans made by the banks, in such a manner as to serve the interests of industry and commerce, and to prevent the indefensible expansion and contraction of credit.

It was the intention of the act to prevent the indefensible expansion and contraction of credit by the banks through which booms and depressions arose.

The powers to expand credit under the System were exemplified during the World War when the Government expanded its loans to the extent of $40,000,000,000 for the financing of the war, without disturbing the credit structure of the banks.

The power to contract credit by the Board of Governors was set forth in a letter of the Governor of the Board, W. P. G. Harding, of May 25, 1920, an abstract of which follows:

1. Discount rates should be raised.
2. Member banks should call loans on agricultural products, thus forcing the sale of such products.
3. Member bank credits should be restricted.
4. Existing loans should be liquidated.
5. Expansion of loans should be checked.
6. That member banks should use their power to limit the volume and character of loans.
7. The Federal Reserve banks should establish normal discount or credit lines for each member bank and should impose graduated discount rates on loans in excess of the normal line.
8. Served notice that the Federal Reserve banks have power to refuse to discount any form or class of paper.
9. Suggested notice to the public that the Federal Reserve banks have the power to control and regulate credit.
10. Served notice to the public that they must economize, must limit demands for banking credit, and must begin to pay existing debts.

11. Suggested that the member banks educate and impress the public with notice of the Federal Reserve's announced policy. (These 11 points are taken from S. Rept. No. 1328, 75th Cong.)

The present powers of the Board were briefly stated by the chairman of the Board, Hon. Marriner Eccles, as follows:

> The primary function of the Federal Reserve System is to influence the flow of money and to contribute to the soundness of the banking situation.
>
> * * * * * * *
>
> Complete authority over all matters of major national policy, such as the determination of discount rates, reserve requirements, margin requirements on security loans, and maximum rates of interest to be paid on time deposits, is vested in the Board of Governors. Authority over open-market operations is vested in an open-market committee, consisting of the seven members of the Board of Governors and five members elected by the Reserve banks.
>
> * * * * * * *
>
> The banks can create and destroy money. Bank credit is money. It is the money we do most of our business with, not with that currency which we usually think of as money.

The Board of Governors and the Reserve banks have the power to extend credits to the member banks, to furnish them with currency, and by their influence can cause the member banks to contract or expand credit.

The Federal Reserve Act as amended, however, had, up to the close of the Seventy-fifth Congress, failed to give a specific legislative mandate establishing a national monetary policy providing for the creation of money adequate to conveniently serve as a medium of exchange in transferring the products and services of the people to and from each other, or to achieve maximum employment and maximum industrial production.

These latter objectives were submitted to the Seventy-fifth Congress by various bills, such as H. R. 7230 (the Patman bill), H. R. 9800 (the Binderup bill), S. 3800 (the Logan bill), and others.

One of the powers of the Federal Reserve Board in the creation of money is the power to buy bonds and bankable assets through a committee called the open-market committee. This committee consists of seven members of the Board and five members chosen by the Reserve banks. The bills pending in Congress propose to remove private persons from the open-market committee on the ground that the question of controlling the expansion of money should be exclusively in the hands of the Board of Governors.

These bills also propose to discontinue the so-called Federal Reserve Advisory Council, consisting of one member from each Federal Reserve bank, and having the power to advise the Board on the exercise of its powers, for the same reason.

Chapter XVIII

THE IMPORTANCE OF A NATIONAL MONETARY POLICY

In order to carry out the constitutional duty of Congress to regulate the value of money, it is absolutely essential that Congress should declare by legislative mandate the policy of the Government, as follows:

That Congress shall by law exclusively create money and regulate the value thereof; that Congress does, by statute, set forth the manner in which the expansion and contraction of bank credit should be accomplished; that Congress shall, by statute, establish the Board of Gov-

ernors of the Federal Reserve System, or some monetary authority, and charge them with the duty of using the Reserve banks for the expansion and contraction of the supply of money; that Congress shall retain adequate control over its monetary agents; that the Reserve banks shall be required to function as they were originally intended to function, as banks established in the interest of the public creation and regulation of the value of money and for the accommodation of industry and commerce.

In the original act, introduced in the Senate on June 26, 1913, by the chairman of the Committee on Banking and Currency, there was an express provision that the powers of the System should be employed "to promote a stable price level." The language "to promote a stable price level" meant precisely the same as if it had been written "to promote a stable dollar of uniform, debt-paying, purchasing power."

This language was stricken from the bill, leaving no specific legislative mandate in the bill requiring the Federal Reserve Board of Governors, or the Federal Reserve banks, to pursue a policy by which to regulate the value of money or "to promote a stable price level."

The omission of this language led to the unhappy results which produced the panic of 1921 and contributed to the more serious catastrophe of 1929–32. It, therefore, is now of supreme importance for Congress to declare a national monetary policy which shall be specific and shall give the Congress an agency through which it may be accomplished.

If a monetary policy clearly defining the above objective was merely declared by the Chief Executive, or by the Secretary of the Treasury, or by the Board of Governors of the Federal Reserve System, it would not be enough, since a change in the Presidency, or in the Secretary of the Treasury, or in the Board of Governors of the Federal Reserve System would subject the policy to change and would not be so dependable as an act of Congress. Not only might the executive officers of the Government be entirely changed in personnel, but they might change their opinions under the influences which heretofore have been so powerful a factor in the conduct of these offices. What the country needs is that those who are engaged in production, transportation, and distribution should be enabled to make their contracts with dependable security upon a fixed policy of the Government having the greatest possible stability.

It is in vain to expect a law to be effective if it is not administered by those who understand it and are in sympathy with it. For that reason, it is of the greatest importance that the members of the Board of Governors of the Federal Reserve System, the Secretary of the Treasury, and those in charge of the 12 Federal Reserve banks should thoroughly understand the monetary policy and have an intelligent comprehension as to the manner in which it may be carried out. It is of importance that they should not be, by virtue of their previous environment and training, at heart opposed to the creation and regulation of the value of money by the Government. As a condition of their service, proof of their fitness should be required and an adequate means should be provided for their removal from office, without stigma and without technical difficulties, in the event that the Congress has its confidence in their efficiency impaired.

That these principles are well understood in Congress will appear from the language of bills that are now pending in Congress, such as the Binderup bill (H. R. 9800); in the proposed amendments to the Patman bill (H. R. 7230); and in the bill introduced by Senator M. M. Logan of Kentucky, former attorney general and chief justice of the State Supreme Court of Kentucky. The language of part of the Logan bill (S. 3800) is as follows:

> The Board of Governors of the Federal Reserve System is hereby declared to be the agency of the Congress to create money and regulate the value thereof, as authorized by the Constitution of the United States; and the individual members of such Board shall hold office subject to the will of the Congress of the United States; and either the Senate or the House by resolution may authorize and request the President of the United States to nominate a successor to a member of the Board from any Federal Reserve district regardless of the term for which he was appointed, whereupon, the office of such member upon the passage of such resolution shall be vacated.

The Binderup bill and amendments to the Patman bill have language of similar purport.

The Patman bill, endorsed by 160 Congressmen, also required the Treasury to purchase the stock in the Federal Reserve banks. The Binderup bill also proposed the purchase of the stock.

The testimony taken on the Patman bill contained all the evidence necessary to justify these principles of the Patman and the Binderup bills.

The Binderup bill makes the State banks subject to the same conditions as the member banks of the Federal Reserve System, which is obviously a necessary principle to make the System uniform.

The importance of a legislative mandate that cannot be overlooked, avoided, or defeated has been already sufficiently illustrated by the administration of the Federal Reserve Act since 1919. It should be perfectly obvious that the mandate in the act that the powers of the System should be employed to accommodate commerce and industry has been entirely ignored by the Federal Reserve Board, and the Board of Governors of the Federal Reserve System, for they have pursued policies resulting in and permitting the absolute destruction of both commerce and industry in the past, as pointed out in the evidence taken on the Patman bill in the testimony of the author of this book, as well as by the testimony of others.

Another provision of value is that the currency of the country should consist of one form of legal-tender paper money in order to prevent the public being confused by the various kinds of paper money which have been permitted to prevail in the past. For instance, we have had not only the original greenbacks of President Lincoln, but the so-called Treasury notes of 1890, and thousands of different kinds of National bank notes, Federal Reserve notes, Federal Reserve bank notes, silver certificates, etc. Simplicity, economy, keeping of records, and management would be simplified by one form of legal-tender paper money.

A desirable bill should also provide a method by which the entire powers of the System should be made available for the protection of the individual bank against any untoward incidents that might happen to it, and all banks should be made subject to the same conditions as far as their reserves are concerned. Such a bill should provide for one form of examination, without cost to the banks, as a part of the expense of the System in stabilizing the banking structure.

The distribution of new money required annually to keep up with the increase of the index of industrial production should be provided through the Social Security organization. A proposal to this end will be found in the Binderup bill.

In considering such a bill the Congress should make a thorough review of the question of legalized interest rates by the member banks with a view to giving the American businessmen a rate of interest at least as low as that enjoyed by the businessmen of nations engaged in competitive commerce (see ch. XIV).

In regulating the flow of money to meet the expansion of industrial production and the increase of population, it must be remembered that there is at present a very large volume of demand bank deposits which are held by the depositors as corporate reserves, or as reserves for investments by individuals. These funds may become active again when a fixed policy of Government is established.

To prevent such funds expanding the medium of exchange beyond the point necessary to restore the predepression price level, the Government must be prepared to contract the money supply when necessary. This can be done by reselling the bonds and bankable assets previously bought. It must be remembered, however, that to achieve maximum production would readily absorb a large part of these reserves when they are restored to active use as a circulating medium, and for that reason this potential expansion is entirely within the control of the Government.

Chapter XIX

THE NECESSITY FOR GOVERNMENT MANAGEMENT AND STABILIZATION OF MONEY

It should be obvious from the terrifying panics from which this country has repeatedly suffered, especially those of the last 30 years (1907, 1921, 1929–32, and 1937) that the whole system of creating and contracting money has been uncontrolled and exceedingly injurious to the people of the United States.

The Congress alone has the legal authority and the legislative and financial power to regulate the value of money. The Constitution broadly gave the Congress the exclusive power to create money. The Constitution specifically directed Congress to regulate the value of money. This direction of the Constitution requiring Congress to regulate the value of money is a constitutional mandate which requires intelligent obedience by those who take the oath of office to support the Constitution.

When the panic of 1921 occurred, we had 30,000 banks. Over 16,000 of these banks have since been compelled to go out of business because of the impairment of the solvency of their borrowers and the destruction of the value of their loans and investments.

While the banks have been of great use to the people of the United States in the creation of money and in the management of the banking business, their inability to cooperate with each other—even if they had the constitutional right to create money—justifies and makes necessary the regulation of the value of money by the Congress, where such duty is by law imposed.

When the Congress shall declare a national monetary policy which shall give the Nation a dollar whose debt-paying, purchasing power shall remain the same from one generation to another, the people of the United States, for the first time in their history, will have an honest dollar.

The only honest dollar is a dollar of stable, debt-paying, purchasing power. The only honest dollar is a dollar which repays the creditor the value he lent and no more, and requires the debtor to pay the value he borrowed and no more.

The people of the United States are entitled to a sound currency. The only sound currency is a currency whose exchange value is the same from one generation to another. The failure of the Government to create and stabilize the value of money has not only resulted in the unemployment of millions of people through no fault of their own, but it has seriously changed the relationship between debtors and creditors, affecting contracts of over $200,000,000,000, representing the public and private debts of the country. It has materially changed the market price and exchange value, not only of money, but of all commodities and services measured by money. It has changed the exchange value of securities on the most colossal scale. It has changed the value of real estate, buildings, and equities of all kinds. It has rendered human labor unstable when the greatest need of the Nation is complete stability in the employment of all the people, with an annual living wage for the least of them.

The desirability of governmental control is demonstrated by the fact that the control of the value of money requires the control of the volume of money. The control of the volume of money by expansion immediately produces an increased industrial production, employment, wages, and corporate, individual, and governmental incomes. The regulation of the volume of money by the Government, with the intelligent purpose of giving money a stable purchasing power, will not only benefit the day laborer, who is entitled to an annual living wage, but it will benefit all workers in field, factory, and mine, and in the offices of the various businessmen of America.

When the national industrial production is doubled it will result in many important benefits. It will enable taxes to be greatly reduced in percentages because the income of the country will be twice as much as it is now and would justify the rate of taxation being cut to one-half. It would put an end to public relief and charity for the unemployed, in large measure. Since to expand the volume of credit and currency should be accomplished by the purchase of Government bonds, it would have the effect of cutting down the interest and amortization charges on Government bonds, thereby reducing the demand on the Budget by approximately $1,000,000,000 a year.

The elimination of the work for public relief and the interest and amortization of the bonds would make an annual saving at present of approximately $4,000,000,000.

Moreover, when the Government regulates the value of money on a basis of stability, it would be justified in creating approximately $2,000,000,000 annually of new money, in the form of demand deposits, to be distributed where it is most needed under the Social Security Act.

The regulation of the value of money by creating money through the Government authority, and for the benefit of all the people, would

result as it has in Great Britain, which in 5 years has increased its industrial production 50 percent and given to the country a rate of interest for 6 years at 2 percent per annum without a break. When the Government of the United States seriously undertakes the problem of creating the money the people require for maximum industrial production, it will abolish poverty in the United States by creating a demand for labor at an annual living wage that will give a satisfactory standard of living to all the people.

The treasure house of natural resources of the United States, the enormous power which now goes to waste from streams which could produce many times the amount of power the people now enjoy, is evidence that there is no limit to what the people can create and enjoy.

The United States has suffered excruciatingly from underconsumption because of the stringency of the supply of a medium of exchange, by which alone the people can exchange their products and services adequately with each other.

The experience of the last 31 years of four serious panics and depressions is proof positive that the banks cannot control the volume of money, and that their failure to do so has not only destroyed thousands of banks, but has inflicted the people with great suffering.

The Government alone can give relief. The Government alone has the legal authority and duty to establish and regulate the value of money, and to create it in sufficient quantity to serve the national use. It alone has the power and the duty to prevent either injurious expansion or destructive contraction.

The creation of the money required by the people to achieve maximum industrial production is now provided for by the Federal Reserve Act, as amended. Some additional amendments are necessary and desirable. The Federal Reserve banks, are, in effect, public banks under the supervisory control of the Congress of the United States, which has delegated the supervision of these banks to the Board of Governors of the Federal Reserve System. Under the present statute, the money which is now required to restore maximum employment can be obtained by the Reserve banks buying Government bonds and other bankable assets to the extent required. When maximum employment and industrial production is accomplished, the Government can prevent any excessive expansion of credit, and can reduce any excessive expansion of credit by the simple process of selling the bonds and bankable assets previously bought by the Federal Reserve banks.

Since the country requires approximately $2,000,000,000 annually of increased money to meet the natural expansion of production, this increase can be created by giving the United States credit with the Reserve banks and spending such money under the Social Security Act for the benefit of people who are disabled by age, sickness, or other incompetency.

It is well known that the supply of money in the United States is most unevenly distributed among the citizens and among the States as well. Therefore, in creating new money, provision should be made for the annual distribution of a portion of it among the consumers who otherwise may not be able to buy.

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Chapter XX

THE EFFECTS OF STABLE MONEY ON THE BANKS

The bankers of the United States, in spite of the weakness of the banking system, have been of great service in creating credit for legitimate production. They have suffered greatly because of the instability of the credit structure. Over 16,000 banks have failed because of the impairment of the solvency of their borrowers and of the security which they had taken from their borrowers. No class will be more greatly benefited by the stabilizing of money through a sound national monetary policy than the bankers. They will be completely protected, not only by the insurance of their deposits, but by the insurance of stability in business and a steady rising in the national production and income.

Under the new system the bankers could earn as good or a better income on their capital and services than they have heretofore done. At the last known estimate of the Federal Deposit Insurance Corporation there were about 50,000,000 deposits in the banks of the United States. If these deposits paid a dollar a month on an average, depending on the size of the deposit and the activity of the deposit, it would produce an income of approximately $600,000,000. These deposits should double under the new system. If the bankers received payment for the volume of checks, on which they guarantee the signature of the maker and of the payee, at the rate of a dollar a thousand it would net them, on the volume of checks debited in 1926, for example, $845,000,000 a year. They would have the right to charge for other services to clients. Besides these revenues the banks would have the opportunity of lending or investing the money represented by savings accounts and time deposits which should, under these circumstances, greatly increase. They could also lend their capital and surplus with impunity.

Moreover, the banks could make long-time loans with dependable security on real estate, homes, apartment, and business buildings. They would have the additional advantage of stability in the value of their bonds and mortgages. Their own investments would increase in value.

So, even if the United States should, as a part of its monetary policy, exercise its right to exclusively create money, the banks would be benefited by such a system.

Under the new conditions of Government creation of the money required for the transaction of the business of the country, there should be an increase in industrial production and consumption, such as has taken place in Great Britain where the Government and banks are pursuing the policy of managed money.

The volume of deposits and the business of the banks should go through an expansion corresponding with the expansion of industrial production.

Under the new system, governed by the principles of modern monetary science, the banks would receive complete protection from the Government against the terrifying evils of future depressions. Thus the solvency of borrowers and the value of the investments of the banks would be given a stability which they have not enjoyed in the past.

ON MANUFACTURERS

Stable money, with stability in business, and a steadily rising volume of production, manufacturers would enjoy an increasing prosperity without fear of collapse from depression, and could, therefore, forecast their future and get the benefit of the savings due to maximum employment of their existing machinery and facilities, with other economies due to stability of production. They could afford to make their contracts with labor on the basis of an annual living wage, with benefits both to the manufacturer and the laborer.

They would be assured of a stable consuming power and a steadily increasing demand. Their sources of supply of raw material would be stabilized and made more dependable. They would be benefited by the lowering of the interest rate on credits required in the transaction of their business. They would be able to obtain credits to an extent on goods in process of manufacture and distribution which they do not at present enjoy.

The wholesaler's accounts payable, which are his income from the merchants and the collection of which enables him to pay the manufacturer, would be stabilized, and establish thereby a volume of dependable credit not now available under the operation of the Federal Reserve System.

ON MERCHANTS

The stabilization and the steady expansion of business under stable money would be of service to the wholesale merchants and retail merchants, and would enable the retail merchants to employ the credits they extent to customers to be used as a basis of bank credit, if they need it in the transaction of their business.

ON CONTRACTORS

Contractors could make their contracts for the future with dependable security, knowing that the dollar would not suffer any substantial change in debt-paying, purchasing power. Contracts could thus be made for buildings and structures running over longer periods of time without danger to the contractors or to those who employ the contractors.

ON CORPORATE AND INDIVIDUAL INCOMES

Under conditions of stability in the purchasing power of money and in business, the incomes of the 400,000 corporations in the United States would be steadily increasing or made more stable. Their dividends would be made more dependable. Individual incomes would be increased, not only through the payment of dividends by the corporations, but by the earning power of individuals under these more favorable conditions.

There are over 500 distinct avocations in the professional and business world that would be interested in the stabilization of business conditions in the United States. There are two and one-half times as many people, adults earning their livelihood by social services, as there are people employed in the factories.

ON AGRICULTURE

The record proves clearly that those who are engaged in agriculture and animal industry suffer more severely than any other class of people from depression.

When all of the people are employed and maximum industrial production is achieved, the people of the cities, towns, and villages will have the means through their wages, salaries, and dividends of buying an increased volume of the products of agriculture and animal industry. This increased consumption will increase the market for such products and enable the farmers to receive a return commensurate with the products of the farms.

The income of agriculture and animal industry will thus be stabilized and the farmers will receive an adequate return for their labor, with a reasonable profit on the capital which they employ. It should result in individual ownership of farms, the liquidation of their mortgages, the end of tenant farming, and the establishment of liberty-loving people in dependable homes in every State in the Union.

ON WAGE EARNERS

Under stable conditions of business, increased production and consumption, and under conditions which will afford a good market for the employment of the labor of wage earners and those who receive salaries, these classes will be able to receive a reasonable annual living wage and reasonable salary.

ON TEACHERS

It is notorious that in some parts of the United States those who teach the youth of America are not paid a reasonable annual living wage. Under conditions where the Government of the United States creates the money required to stabilize business, the uneven distribution of money, employed in consumption and production, can be so modified as gradually to substantially increase the income of the underpaid teachers.

It should be remembered that the income of the States, counties, and cities is profoundly affected by the money supply in the various States and that, therefore, State employees and social workers, and even ministers of the gospel, are deeply affected by the wealth or poverty of the State in which they live.

ON GOVERNMENTAL INCOME

The income of the United States Government is derived directly from taxes which are imposed on the people. These taxes are necessarily limited by the capacity of the people to pay. Therefore, in States, counties, and cities where there is an unequal distribution of money, the Governments are themselves limited in paying employees.

During the depression of 1932, the United States Government income fell to less than one-half of what it was before. But under conditions of stability, when industrial production can be increased to twice what it is at present, the Government income would be expanded correspondingly, and with the cutting off of the expense of public relief, of interest and amortization on the public debt (proposed by the new system), the taxes on all classes of people could be greatly

reduced and the services of the Government, the States, counties, and cities could be employed in the matter of protection, education, health services, and other public facilities.

ON THE CREDITOR CLASS

Under stabilized conditions, where the national industrial production is increased or doubled, the creditor class would be benefited by the assurance of the ability of the debtor to meet his obligations. Therefore, the investments of the creditor class would be increased in the matter of stability and certainty of payment of interest and principal.

ON THE SUBMERGED THIRD

The effect of the new system would be to put an end to unwilling unemployment and to furnish the opportunity to all who are able and willing to work to make a reasonable living by their own efforts, and put an end to the tragic conditions where one-third of the people are underfed, underclothed, and undersheltered and compelled to rely upon public or private relief to avoid starvation and destructive exposure of health.

ON THE WEALTHY CLASS

The 2 percent of the people who might be classified as very wealthy would have the advantage of stability in their incomes and a very substantial lowering of taxes, for the simple reason that higher taxes would be unnecessary. The danger to the disturbance of the social order by a growing class of unemployed and unhappy people would cease. The crime which is engendered by extreme poverty and suffering and which often threatens the rich and their property would be abated and would probably almost entirely cease to exist. The growth of political organizations seeking violent remedies for the existing distress of the country would cease, and the danger from such sources would be ended by a better understanding and better conditions of life. The real estate and securities of the wealthy class would increase in value.

One of the objectives of modern monetary science is not to take from those who have and give to those who have not, but to create conditions under which those who have not shall be able to create for themselves the things which they need for the comforts and conveniences of life, and the opportunity to enjoy the products and services which they themselves create. The great objective is to facilitate the creation of abundant wealth for all the people to enjoy.

Chapter XXI

THE CAPITALIST SYSTEM

The capitalist system is based upon the sound theory that those who create wealth by labor, inventive genius, organization, and thrift should be entitled to enjoy fully the proceeds of their labor, sacrifice, and talents.

This theory is based upon merit and reason, and yet it is also true that the capital acquired in this way is the offspring and directly derived from labor itself and that labor, which creates capital should

not be oppressed and exploited, or reduced to severe poverty by the processes of organized capital, which is itself the offspring of labor.

It has been the failure to recognize this truth which has resulted in the enormous disturbances of the world. When the capitalist system in Russia, under and because of the Romanoffs, had rendered life unendurable to those who labored in the fields and factories, it resulted in the violent revolution of Lenin and the complete overthrow of the capitalist system, for the time being, throughout Russia, involving nearly 165,000,000 people. This policy has been extended to some extent into China.

In our own country communism has been advocated by groups of people who see no better remedy.

Modern monetary science points out with precision a method by which the benefits of intelligent capitalism can be conserved, and at the same time abate the harm which comes from an imperfect system that permits excessive abuses of monopoly that have resulted from an imperfect credit and banking structure in the United States.

It is unwise and unjust to broadly indict the motives of other people that may arise from self-interest and which probably are without any inimical or unjust purpose toward others.

Under the knowledge acquired in recent years, modern monetary science can now clearly point the way to a means of doubling the national production of wealth by creating enough money to give food, clothing, permanent family homes, the comforts and conveniences, and even the luxuries of life, to all of the people who are willing to do their full part in the creation and distribution of the wealth created. Modern monetary science points the way by which the Government, representing all of the people, shall prevent either inflation (which is the indefensible expansion of credit or money) or the corresponding undue and indefensible contraction of credit through which the people have suffered.

Modern monetary science proposes a plan which the Supreme Court of the United States has justified in its opinion in the *Legal Tender cases*. The plan is constitutional. It is based upon the exclusive right of the Government to create money and the explicit duty "to regulate the value thereof." It does not propose to take away from the rich that which they have acquired by law, but to enable the unemployed millions to be employed and to create the wealth needed for feeding, clothing, and sheltering themselves out of the proceeds of their own labor. The plan proposes to end the suffering of one-third of the American people because of undeserved poverty. The plan is founded upon benevolence, justice, and righteousness. It is based on reason, on thoroughly well-established facts, and on sound precedents that cannot be disputed by intelligent men of good will and honest purpose.

Chapter XXII

INTERNATIONAL STABILIZATION IMPRACTICABLE

In 1934 the United States established a stabilization fund of $2,000,000,000 in gold. This fund was placed within the discretion of the Secretary of the Treasury as a means of stabilizing the American dollar in relation to the pound sterling, the French franc, and other foreign currencies.

Great Britain had a similar fund for the purpose of protecting the pound from speculative changes. France had a similar fund.

The idea was advocated in the United States that the stabilization fund should be employed to stablize the pound sterling and French franc and keep them in a constant relationship to each other. This conception proceeded upon the theory that a fixed relationship between the pound, the franc, and the dollar would stabilize the pound and the franc domestically, when, as a matter of fact, nobody but the French people could stabilize the French franc, or the English people the pound.

The French people could, of course, repeat what they did during the World War; reduce the franc to one-fifth of its pre-war purchasing power. They expanded the franc in volume five times and diminished its purchasing power to one-fifth of what it had been.

After the United States had changed the value of gold to $35 an ounce, the franc went up above 6 cents but is now worth only 2.8 cents in terms of the dollar, less than half its dollar value previously. The pound sterling, however, under a managed currency for the 6 years since 1932 has had an index comparatively stable but rising substantially to correspond in some degree with the increase in industrial production.

Germany has stabilized its own currency and has had no change in the domestic purchasing power of the mark during the last 2 years.

None but the British people can regulate the value of the pound sterling, and nobody but the people of the United States can regulate the value of the dollar.

Notwithstanding the diminished amount of gold in the American dollar (59 percent of its previous amount), the purchasing power of the American dollar in its domestic markets has increased above the standard for 1926.

Any country can destroy the value of its currency by violent inflation and can double the purchasing power of its currency by contracting credit and currency to one-half of what it had been.

When the United States restores its dollar to the normal, pre-depression price level of 1926 and maintains its purchasing power at that point, and provides for its expansion to correspond with the expansion of industrial production, it will have established a dollar of uniform, debt-paying, purchasing power from one generation to another. When this shall have been accomplished, an ounce of gold, which is 35 times the stabilized dollar value, will have a stable international exchange value and other nations may use such stabilized ounce of gold by fixing the value of gold in terms of their own currency, which they wish to maintain at a standard stabilized value.

France, for instance, could fix the franc at 2.8 cents, by declaring an ounce of gold worth in francs the quotient of $35 divided by 2.8 cents.

Thus there would be established a temporary international stabilized currency between France and the United States.

But the continuance of the arbitrary price of $35 an ounce for gold is subject to change by will of the Congress of the United States. It might be changed if all other nations demonetized gold internationally. It might be changed by modern processes of gold extraction and the discovery of new and large deposits of gold which would cheapen

gold and make it impossible for America to maintain its international value at $35 an ounce.

These considerations make it perfectly clear that there is no such thing as a dependable international stabilization of gold at the present stage of the world's history.

THE INADEQUACY OF THE FORMER GOLD STANDARD

For a long period of time the gold standard was regarded as giving to money stability in purchasing power, on the theory that gold in its volume was not capable of rapid changes and the world could adjust itself to the slight variations of the annual production of gold not required in the commodity markets but employed for monetary purposes.

For that theoretical reason, on March 14, 1900, the United States established the gold standard, declaring the dollar of the United States to consist of 25.85 grains troy weight of gold, nine-tenths fine. The law provided for unlimited coinage of gold on this basis. It was supposed that this was a dependable safe standard; that it comprised honest money; and that nothing else was really money except gold, or promises to pay in dollars redeemable in gold. This was the folklore of the students and teachers of political economy, with a few very important exceptions. It was the orthodox traditional belief that gold and nothing else is money except gold, or paper money as a promise to pay in gold dollars.

The orthodox students of monetary science had not yet discovered that this gold dollar was pegged to the American dollar used as currency and as check money, and that the purchasing power of the gold dollar went up and went down with the American dollar; and that, therefore, the whole world currency which dependend on the purchasing power of gold was really depending upon the purchasing, debt-paying, power of the American dollar.

The orthodox traditional theory did not contemplate the rise and fall of the purchasing power of the dollar due to contraction or expansion, or due to the expansion or contraction of commodities.

In May 1913 the dollar index, representing the gold dollar, had an index of purchasing power of 145. Under the expansion of credit due to the World War, and the relative contraction of commodities following the war, the index of the purchasing power of the gold dollar fell to 60 in 1920. It rose to 167 in February 1933. Since all of the nations whose currencies are based on the gold standard were violently affected by this change in the purchasing power of gold, they were all compelled to go off the gold standard in their domestic circulation. This violent increase in the purchasing power of gold simply meant that the currencies based on gold suddenly had an increased purchasing power in terms of commodities (the products of labor) and property, resulting in bankruptcies in many nations and interfering with the power of nations to liquidate their bonded indebtedness, at home as well as abroad.

This change in the purchasing power of gold was due directly to the expansion of credit in 1920 and the contraction of credit in 1921 and 1933. It thus has been demonstrated to the whole world that gold, as a monetary unit, had no stability whatever but slavishly followed the American dollar, and when the United States arbitrarily fixed the

price of gold at $35 an ounce, the world followed and accepted internationally the price fixed upon gold.

All countries are now off the domestic gold standard.

THE MODERN USE OF GOLD AND ITS POSSIBILITIES

In the vast exchange of commodities from nation to nation through exports and imports, it should be taken as a fixed principle that in the long run the exports and services of a nation, which establish credits abroad, are paid for by imports and services from such nations, the credits so established being usually employed in the purchase of goods and services from the importing nation. If such be not fully employed in the purchases of commodities and services then the trade balances must be liquidated either by the shipment of securities or the shipment of gold. Gold has been abandoned as a circulating medium of exchange in the domestic business of nations, although it is still actively employed as a means of liquidating trade balances. For this purpose gold continues to be useful.

The United States has now accumulated over $14,000,000,000 of gold in the liquidation of trade balances, financial balances, and transfers of capital.

There is another very important use to which gold may be put, as a means of promoting the stability of money in other nations of the world.

When the American dollar shall have become stable, it would stabilize the purchasing power in the United States of an ounce of gold, which by statute is worth 35 times $1.

When an ounce of gold has a stable purchasing power in the United States, other nations throughout the world, by regulating the volume of currency in their domestic circulation in relation to the volume of their industrial production, could employ the ounce of gold for the purpose of stabilizing their domestic currency internationally.

It should be remembered that the American people do not use the money of any other country in their domestic circulation. The only use they have for such money is to pay in those countries for amounts due, for goods imported, for investments, or for the payment of traveling expenses.

There will always be, of necessity, daily fluctuations in the value of the currency of the various countries in terms of American money, because of the fluctuating daily needs for such foreign currency for the purposes cited. This would be true even if all nations attempted to stabilize the purchasing power of their domestic currency.

Nevertheless, the United States would greatly serve the welfare of international commerce if it stabilized the American dollar first by regulating the volume and value of money in relation to the American industrial production. In that event, the gold ounce would have stability of purchasing power in the United States, and other nations who had in similar manner stabilized their domestic currency could, by the use of gold, have a comparatively stable international exchange without the violent fluctuations which have taken place in the world heretofore.

It should be obvious that the American people alone can stabilize the purchasing power of their own money. It should be obvious that the French people alone can stabilize the purchasing power of their own money.

If another World War should take place, the world would necessarily see again the governments engaged expanding their currency because of the exigencies of war, and therefore subjecting their currency to violent changes through such expansion.

Such a contingency makes it the more manifest that the United States cannot, through a gold stabilization fund, or by any other means, regulate the value of any foreign currency.

FOREIGN EXCHANGE

The value of the American dollar in its relation to the British pound sterling or the French franc depends upon the relative supply and demand of the American dollar in London and Paris. In normal times the demand for dollars in London or in Paris depends upon trade balances and the shifting from one country to another of capital or money.

The trade balances between the United States and Great Britain depend upon the volume of British purchases in the United States and American purchases in Great Britain. When these purchases are balanced, there is comparative stability unless money or capital is transferred from one country to another. The factors which enter into this trade balance are imports and exports of commodities, and also the services rendered by citizens of one country to citizens of another country. Great Britain receives large credits from marine insurance and from marine freight on commodities transported throughout the world in British ships. In addition there are large expenditures by United States citizens in Great Britain which are in excess of the expenditures of British citizens traveling in America.

These factors affect the trade balances.

When such trade balances are in favor of the United States an equilibrium is brought about by the shipment of gold to the United States as international money.

But in addition to these factors there exists a very large amount of liquid money or liquid capital which for speculative purposes may be transferred from Europe to the United States, as during the inflationary boom preceding the stock-market collapse of 1929 when it was found that approximately $3,000,000,000 of foreign money was loaned in the security exchanges of the United States. In addition, during the boom there was still larger investments in American securities on the rising market, which were sold out in substantial part immediately before the collapse of October 1929.

It was because of this huge volume of liquid money, controlled by international bankers, that Great Britain and France were compelled to establish stabilization funds in order to offset and neutralize the daily instability produced by speculative transfer of this international fund from one country to another. It was this international liquid fund of money, which could be transferred from one country to another, that caused the United States to establish the $2,000,000,000 stabilization fund, so that the speculations could be offset by the power of stabilization funds established in the United States, Great Britain, and France.

When, however, France stabilizes its own money in a domestic sense by regulating the flow of money in relation to the production of commodities and services in France, and when Great Britain stabilizes its currency by the public control of credit or money through

regulating the flow of money in relation to the production in Great Britain, and when the United States regulates, through congressional action, the money supply in relation to the national production and stabilizes the purchasing power of the dollar, it may then become possible to establish the possibility of a fixed relationship between the dollar, the pound sterling, and the franc.

But the continuance of such stability between these three currencies will at last depend upon the domestic action of the three Governments. The first step toward the possibility of international stabilization is the stabilization of the dollar, the pound sterling, and the franc domestically, and the continuance of such domestic stabilization in the three countries. Domestic stabilization will diminish the opportunities of speculation by the liquid capital of international bankers who have in the past speculated by transferring money from one country to another, rendering money more abundant in the one and less abundant in the other, through which process profit can be made. This international speculation can be and should be abated by law as a practice harmful to all nations who are the victims of such process.

The regulation of the value of money in Great Britain has been accomplished by the consent and cooperation of the clearing-house banks that control the flow of credit in conjunction with the Bank of England. The Bank of England receives its direction from the Chancellor of the Exchequer, as for example:

Those for whom I speak welcome the freedom which we have in comparison with those in many other markets, but we wish to use that freedom in the only proper way it can be used, and that is in harmony with the Government's policy. I assure the Ministers that if they will make known through the appropriate channels what they wish us to do in the furtherance of their policies, they will at all times find us willing with good will and loyalty to do what they direct as though we were under legal compulsion. (Governor of Bank of England, October 1936.)

We must look very largely to the Chancellor of the Exchequer, and we assure him that in all matters his requests govern the conduct of our affairs. We would prefer, however, that he made his requests as such rather than in the form of legislation. Legislation is too foreign a method. (Governor of the Bank of England a year later.)

And Germany and Italy also.

In present-day Germany banks are unobtrusively given instruction from high above and they know better than to question the advisability of a policy thus recommended to them. In Italy also banks are told by the Government what their policy is to be and they implicitly obey orders. (Dr. Otto Rosenberg in an address before the Society for Stability in Money and Banking, Inc., in Minneapolis, Minn., October 13, 1938.)

Chapter XXIII

STORM SIGNALS

The destruction of the property values of millions of small-business men and millions of citizens throughout the country because of the contraction of the money supply has given rise to demands for the expansion of consumers' buying power through pensions of $200 a month to persons of 60 years or more under the so-called Townsend plan. Hundreds of thousands of people have actively espoused this pension plan.

It was the contraction of the money supply and the suffering of one-third of the people for lack of food, clothing, and shelter that caused the strenuous campaign urged by Senator Long, of Louisiana.

It was the contraction of the money supply of the people and the suffering caused that led to the initiative petition in California, signed by over 800,000 citizens, demanding a pension of $30 every Thursday for every unemployed person over 50 years of age. This latter plan proposed the issuance of scrip money by the State in disregard of the principle of the exclusive issuance of the money by the Congress of the United States.

These are storm signals indicating serious public discontent with the contraction of the money supply and its consequences. Attention has been called to the demand of the representatives of the American Federation of Labor, the National Farmers Union, the National Grange, the American Federation of Farm Bureaus, and the Cooperative Council (representing thousands of farm organizations and 1,200,000 dues-paying members) for a correction of the evil and the restoration of the purchasing power of the dollar to a normal pre-depression level and the maintenance thereof.

Attention is called to the various bills, heretofore referred to, now in Congress demanding by the congressional regulation of the value of money a correction of the evils complained of.

It will be remembered that during the depression of 1929–32 the people manufactured millions of dollars of scrip money for their own convenience and safety because of the negligence of the Government in providing the country with an adequate supply of credit and currency.

Attention is called again to the party platforms promising relief, and yet there is still a strong campaign going on in the United States opposing Government control of the regulation of money on the ground that the Congress of the United States cannot be trusted in such matters.

There is need, and great need, of an informed public opinion based upon realities, facts, reason, and sound principles which have been demonstrated by experience.

Other storm signals that are manifesting themselves in the United States are organizations favoring communism, nazi-ism, facism, etc. All of these organizations spring from the unmerited suffering of people through undeserved poverty. When undeserved poverty is ended by intelligent governmental action, there will be no reason, or excuse, for those who advocate extreme or un-American measures.

The intelligent democracies of the world and, particularly the most intelligent democracy in the world, are now charged with the responsibility of ending poverty in the world. When poverty is abolished, as it can be under the principles of modern monetary science, the entire human race will have an example set, through the cooperation of the people, that they can create and distribute for their own use all of the comforts, conveniences, and luxuries they desire.

America is charged with the duty of protecting the greatest and oldest democracy in the world from the subversive influences which have arisen from a destructive monetary system in this country and throughout the world.

PUBLIC OPINION AND CONGRESSIONAL CONTROL

For many years the people of the United States have been actively seeking a solution for the establishment of a dollar that shall have a stable purchasing power.

The panic of 1907 was followed by the Vreeland-Aldrich bill (passed in 1908) authorizing asset money based on sound bank assets. This act established the National Monetary Commission which studied the questions involved for 4 years, brought in a report of 32 volumes describing the banking systems of other commercial nations, and submitting a library on the subject matter of 2,500 volumes.

The National Monetary Commission proposed a bill establishing a central bank governed by the member banks.

In 1913 the administration of President Woodrow Wilson brought in the Federal Reserve Act, approved December 23, 1913, establishing 12 Federal Reserve banks, concentrating the reserves of the member banks, and establishing a system supervised by the Federal Reserve Board, which represented the United States Government.

The Federal Reserve System financed the World War, raising $40,000,000,000, and reduced bank failures to zero in 1918.

This act gave great powers to the Federal Reserve Board and the Federal Reserve banks. The power was used in 1921 to contract credit, resulting in the depression of 1921. This contraction was corrected under the Coolidge Administration and a great expansion in stocks and credit took place in the securities exchanges. This resulted in a stock market boom and crash in October 1929. This caused a most serious depression.

In 1932 the Banking and Currency Committee of the House of Representatives held hearings on bills to stabilize money, and passed a short bill, called the Goldsborough bill, which provided for the declaration of a national monetary policy to restore and maintain the purchasing power of money, as ascertained by the Department of Labor for the average of the years 1921 to 1929, inclusive. This bill directed the Secretary of the Treasury, the Federal Reserve Board, and the Federal Reserve banks to make effective this policy.

There appeared before the committee a number of men informed in modern monetary science who supported this bill. Representatives of all the great agricultural organizations appeared in support of this policy; the National Grange, National Farmers Educational and Cooperative Union, the American Federation of Farm Bureaus, and the National Cooperative Council (representing 4,000 farm organizations and 1,200,000 dues-paying members). The representatives of the American Federation of Labor also approved this policy. Mr. Henry A. Wallace, now Secretary of Agriculture, appeared and approved this policy.

The committee reported the bill favorably. The House, after 2 days' debate, passed it by 289 to 60, 117 Republicans voting for it, along with 172 Democrats and Farm-Laborites.

This bill failed to pass the Senate, the Senate substituting a measure to expand the national-bank currency.

The national platforms of the Democratic Party, Republican Party, Farm-Labor Party, and of the Progressive Party have heretofore been cited with their approval of sound money under constitutional public control.

There is the strongest reason to believe that a substantial majority of the Members of the House of the Seventy-fifth Congress were in favor of congressional control and regulation of the volume and value of money. The matter is being debated on the hustings throughout the United States. A large number of speeches were made on the floor of the House urging this reform. Study clubs throughout the country are giving attention to this matter.

So there is need for an informed public opinion upon this question.

Twelve hundred thousand young men and young women arrive at age annually whose future is clouded by the existence of 10 or 12 million unemployed people, arising from a failure of the Congress to discharge its constitutional duty to create and regulate the value of money.

The facts and principles set forth in the preceding pages are intended to aid the young men and women of America to understand this question and to guide future public opinion. The responsibility is upon them in part to perform this patriotic service. The time has come to end the underserved poverty of one-third of the American people. The time has come to raise the national production to a maximum sufficient to give all of the people of the United States an abundance of food, clothing, shelter, leisure, and education, and permanent comfortable family homes.

To this task this book summons the youth of the country for their own sake, and for the sake of the future of America.

APPENDIX

Glossary

Booms.—Where property prices rise above normal by the indefensible expansion of credit and currency.

Creditor.—One who holds the bonds or obligations of another payable in dollars; a bondholder; a holder of bills receivable; a bank depositor; whether a government, corporation, or individual.

Debits.—Are charges against a demand deposit and represent the volume of dollars employed by the people of the country through checks drawn and paid in the transaction of the national business. The volume of such checks debited in the standard year 1926 was $845,000,000,000.

Debtor.—One who owes a bond or bills payable, or obligation of debt to a creditor in whatever form, secured by mortgages, collaterals, or unsecured; whether government, corporation, or individual.

Deflation.—The defensible contraction of the inflated credit and currency of a previous inflation. The indefensible contraction of credit and currency cannot be called deflation with propriety. Deflation is defensible contraction, not indefensible contraction.

Depressions.—Where property prices fall below normal due to the indefensible contraction of credit and currency.

Extrinsic.—It is the exchange value for a legal-tender currency note, as, the paper and ink on which it is printed having no intrinsic value.

Hoarded money.—Consists of demand deposits held as reserves, or for future investment purposes and which are not employed as a medium of exchange, but can be so employed at the option of the owner. Hoarded demand deposits have the effect of contracting the money supply available as a medium of exchange. Currency hoarded likewise is a contraction of the money available as a medium of exchange and can result in compelling the people to manufacture their own money in the form of scrip money, as in 1932.

In circulation.—Demand bank deposits in circulation are those actively employed in the daily transaction of business. A demand deposit under one account may, to a high percentage, be a demand deposit representing reserves and money held for future investment while only 10 percent of such demand deposits may be actively employed in the daily transaction of business. The ledgers of a bank do not differentiate between a demand deposit which is 90 percent in storage and 10 percent active. Therefore the amount of money in circulation must be ascertained by the volume of checks debited against the demand deposit and otherwise may be ascertained by the volume of money required to buy the commodities listed by the Department of Labor in ascertaining the price level.

Indefensible contraction.—Where the contraction of credit and currency deprives the people of a sufficient quantity of money to exchange the maximum products and services of the people.

Indefensible expansion.—The expansion of credit and currency above the quantity required for the convenient exchange of the products and services of the people.

Index numbers.—These are employed for purposes of comparing one year, month, or week with another. Usually the index is put at 100 so that the mind can quickly grasp an increase or decrease from the normal standard by percentages; such as the index of the price level, the purchasing power of money, the indexes of car loadings, factory production, factory pay rolls, factory wages, etc.

Inflation.—An indefensible expansion of credit and currency. An expansion of credit and currency beyond the requirements for the exchange of the maximum products and services of the people. It does not mean defensible expansion where the money supply is subnormal, or below the amount required for the maximum exchange of products and services by the people.

Intrinsic.—It means a value in the commodity itself, as the gold in a gold coin, or silver in a silver coin. A $10 gold piece has a certain amount of intrinsic value besides the monetary value which at one time was granted by law. A legal tender $10 bill has no intrinsic value but an extrinsic value of $10.

Legislative mandate.—A declaration by the legislative power of a policy or instruction.

Maximum employment.—The employment of the greatest number of persons able and willing to work employed in the activities of a country.

Maximum production.—The highest volume of products of which a country is capable through manpower and machinery.

Money.—Anything by conventional use employed as a medium of exchange and measure of value, whether currency, bank checks, or bank deposits in circulation. Savings accounts comprise money in storage but are not money employed as a medium of exchange.

Monetary policy.—The national policy governing the flow and value of money and/or the means for accomplishing such objectives.

Orthodox economist.—One who believes in the tradition of the gold standard as the only sound currency.

Paper money.—It is legal tender in the United States, issued by the Government of the United States exclusively. It is receivable for all debts, public and private, and superior to gold, which is not legal tender in the United States. Its exchange value depends upon the necessity for its use in the payment of taxes, fixed charges, and the transaction of business.

Products and services.—This term is used to indicate the amount of products and services of labor exchanged by the people with each other annually.

Purchasing power.—"Purchasing power" means the ability of the consumers to buy and pay for desired goods and services.

Scrip money.—An obligation to pay issued by a corporation or individual and redeemable by the issuer. Scrip issued by cities receivable for taxes. Scrip issued by stores redeemable in merchandise, etc.

Sound currency.—Legal-tender currency of uniform, permanent, debt-paying power.

Stability.—It means stability in the value of property and money, which measures the value of property. The stability of money is the only basis upon which stability of property can be secured.

Turn-over.—The turn-over of money in circulation is the number of times it turns over per annum. The turn-over of demand deposits employed in actual circulation is the number of times such deposits are employed per annum by transfer from one to another, as in 1929 when the total volume of demand deposits was estimated to have had a turn-over of 50 times per annum.

Lincoln's Monetary Policy

Money is the creature of law and the creation of the original issue of money should be maintained as an exclusive monopoly of National Government.

Money possesses no value to the State other than given to it by circulation.

Capital has its proper place and is entitled to every protection. The wages of men should be recognized in the structure of and in the social order as more important than the wages of money.

No duty is more imperative on the Government than the duty it owes the people to furnish them with a sound and uniform currency, and of regulating the circulation of the medium of exchange so that labor will be protected from a vicious currency, and commerce will be facilitated by cheap and safe exchanges.

The available supply of gold and silver being wholly inadequate to permit the issuance of coins of intrinsic value or paper currency convertible into coin in the volume required to serve the needs of the people, some other basis for the issue of currency must be developed, and some means other than that of convertibility into coin must be developed to prevent undue fluctuations in the value of paper currency or any other substitute for money of intrinsic value that may come into use.

The monetary needs of increasing numbers of people advancing toward higher standards of living can and should be met by the Government. Such needs can be served by the issue of national currency and credit through the operation of a national banking system. The circulation of a medium of exchange issued and backed by the Government can be properly regulated and redundancy of issue avoided by withdrawing from circulation such amounts as may be necessary by taxation, redeposit, and otherwise. Government has the power to regulate the currency and credit of the Nation.

Government should stand behind its currency and credit and the bank deposits of the Nation. No individual should suffer a loss of money through depreciated or inflated currency or bank bankruptcy.

Government possessing the power to create and issue currency and credit as money and enjoying the right to withdraw both currency and credit from circulation by taxation and otherwise, need not and should not borrow capital at interest as the means of financing governmental work and public enterprise. The Government should create, issue, and circulate all the currency and credit needed to satisfy the spending power of the Government and the buying power of consumers. The privilege of creating and issuing money is not only the supreme prerogative of Government, but it is the Government's greatest creative opportunity.

By the adoption of these principles, the long-felt want for a uniform medium will be satisfied. The taxpayers will be saved immense sums in interest, discounts, and exchanges. The financing of all public enterprise, the maintenance of stable government and ordered progress, and the conduct of the Treasury will become matters of practical administration. The people can and will be furnished with a currency as safe as their own Government. Money will cease to be master and become the servant of humanity. Democracy will rise superior to the money power.

(The above is an abstract of Lincoln's monetary policy from Mayor McGeer's Conquest of Poverty and has been certified as correct by the Legislative Reference Service of the Library of Congress at the instance of Hon. Kent Keller, Member of the House of Representatives.)

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CHART NO. 1.—*Monetary chart exhibiting expansion and contraction with results, 1913–24*

	Wilson administration								Harding and Coolidge administrations			
	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924
1. Total banks [1]	25,993	26,765	27,062	27,513	27,923	28,880	29,123	30,139	30,812	30,389	30,178	29,348
2. Total capital [1] [2]	4.3	4.4	4.5	4.6	4.9	5.0	5.3	6.0	6.4	6.6	6.8	7.1
3. Total loans [1] [2]		15.3	15.7	18.0	20.5	22.4	24.7	30.8	29.0	27.8	30.4	31.5
4. Total investments [1] [2]		5.5	5.8	6.6	7.8	9.4	11.8	10.8	11.0	12.2	13.3	13.6
5. Total deposits [1] [2]	17.2	18.1	18.8	22.3	25.8	27.5	32.4	37.0	34.5	36.8	39.3	42.1
6. Total demand bank deposits (excluding public funds) [1] [3]												
7. United States currency in circulation [1] [2]		3.2	3.0	3.4	3.8	4.2	4.6	5.2	4.6	4.2	4.5	4.6
8. Checks cashed (per annum) by all banks [2] [4]												
9. Commodity index (price level)	69.0	67.4	68.3	82.9	122.0	129.0	135.6	166.5	93.4	96.3	100.3	94.9
10. Dollar index	1.449	1.484	1.464	1.206	0.820	0.775	0.737	0.601	1.071	1.038	0.997	1.054
11. Index, physical products	38.9	38.8	40.6	47.5	56.2	65.6	70.7	78.7	65.6	69.9	79.8	81.3
12. Unemployment [5]								1.4	4.2	3.4	1.5	2.3
13. Index carloadings							84	91	79	87	100	97
14. Construction contracts							63	63	56	79	84	94
15. Number of commercial failures		18,280	22,156	16,993	13,855	9,982	6,451	8,881	19,652	23,678	18,718	20,615
16. Exports [2]	2.5	2.1	3.6	5.5	6.2	6.1	7.9	8.2	4.5	3.8	4.2	4.6
17. Imports [2]	1.8	1.8	1.8	2.4	3.0	3.0	3.9	5.3	2.5	3.1	3.8	3.6
18. Total value common stocks [3] [6]												
19. Index farm products	69.8	71.6	70.3	78.2	134.0	140.2	156.9	167.4	80.6	92.8	96.0	94.3
20. Value of farm lands [2]	38.4	39.6	39.5	42.2	45.5	49.9	54.5	66.3	61.4	54.0	52.7	50.4
21. Treasury receipts [2]	0.7	0.7	0.7	0.8	1.1	3.7	5.2	6.7	5.6	4.1	4.0	4.0
22. Total reserve bank credit [2]					0.6	1.6	2.5	3.3	2.1	1.2	1.2	0.8

[1] The first 7 lines relate to June 30 only.
[2] Indicates billions and decimals thereof.
[3] This record begins in 1927.
[4] This record begins in 1929.
[5] Indicates millions or decimals thereof.
[6] This record begins in 1925.

The above figures are from Federal Reserve Board records.

CHART No. 2.—*Monetary chart exhibiting expansion and contraction with results, 1925–36*

	Coolidge administration				Hoover administration				Roosevelt administration			
	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
JUNE 30												
1. Total banks	28,841	28,146	27,061	26,213	25,330	24,079	22,071	19,163	14,624	15,894	16,053	15,803
2. Total capital [1]	7.4	7.8	8.3	8.9	9.5	10.0	9.5	8.1	6.9	7.4	7.3	
3. Total loans [1]	33.9	36.2	37.4	39.5	41.5	40.6	35.4	27.8	22.2	21.43	20.3	20.1
4. Total investments [1]	14.9	15.4	16.4	17.8	16.9	17.5	19.6	18.2	17.9	21.2	24.1	27.8
5. Total deposits [1]	45.9	47.9	49.4	51.4	50.5	50.5	47.6	38.5	34.2	36.9	41.3	45.9
6. Total demand bank deposits (excluding public funds)			23.4	23.3	22.4	22.2	19.5	14.9	14.0	15.5	18.9	22.5
7. United States currency in circulation [1]	4.5	4.6	4.6	4.5	4.5	4.2	4.5	5.4	5.4	5.4	5.6	6.2
8. Checks cashed (per annum) by all banks [1]					1,230	900	660	450	430	470	530	
9. Commodity index (price level)	103.0	100.4	94.1	96.7	95.2	86.8	72.1	63.9	65.0	74.6	79.8	80.6
10. Dollar index	.971	.971	1.063	1.034	1.050	1.152	1.387	1.565	1.538	1.340	1.253	1.241
11. Index, physical products	86.4	91.1	93.4	96.0	100.0	92.8	78.5	61.5	57.2	63.8	91.0	109.0
12. Unemployment [2]	1.7	1.6	2.0	2.2	1.8	4.7	8.7	13.1	13.7	12.3	12.2	10.5
13. Index carloadings	103	106	103	103	106	92	75	56	58	62	63	72
14. Construction contracts	122	129	129	135	117	92	63	28	25	32	37	61
15. Number of commercial failures	21,214	21,773	23,146	23,842	22,909	26,355	28,285	31,822	20,307	12,185	11,879	
16. Exports [1]	4.9	4.8	4.9	5.1	5.2	3.8	2.4	1.6	1.7	2.1	2.3	[3]
17. Imports [1]	4.2	4.4	4.2	4.1	4.4	3.1	2.1	1.3	1.4	1.7	2.0	[3]
18. Total value of common stocks [1]	29.7	35.6	42.0	52.9	77.3	63.9	47.4	15.6	36.3	34.4	36.2	46.9
19. Index farm products	109.3	100.9	96.5	106.7	103.3	88.9	65.4	45.7	53.2	63.3	78.3	78.2
20. Value farm lands [1]	49.4	49.0	47.6	47.4	47.8	47.8	43.7	36.8	30.3	31.6	32.8	
21. Treasury receipts [1]	3.8	4.0	4.1	4.0	4.0	4.2	3.3	2.1	2.2	3.3	4.0	
22. Total reserve bank credit [1]	1.1	1.2	1.1	1.6	1.4	1.0	.9	2.3	2.2	2.5	2.4	2.5

[1] Indicates billions and decimals thereof.
[2] Indicates millions or decimals thereof. The above figures are from Federal Reserve Board records.
[3] The imports for the month of September 1936 were 216,000,000. The exports for the month of September 1936 were 220,000,000. Below these lines, the index references are to the years involved, except 1936. The checks cashed per annum include from January to December as to the indexes for those years.

NOTE.—In July 1936 about 10,500,000 of persons out of 52,000,000 of employables were still unemployed (estimated). Ordinarily, total bank deposits include public funds, but not in this chart. The above figures represent expansion and contraction of credit and currency—money.

The following table was prepared by the Bureau of Research of the Board of Governors of the Federal Reserve System and shows the important relationship between the volume of money, as indicated by bank debits in 141 centers, and the factors listed, particularly factory employment. Since the figures are given by months, it will be seen how closely employment and production follow the expansion and contraction of money. The bank debits also indicate the amount of demand deposits in actual circulation, because these checks are debited only against demand deposits in circulation, not upon demand deposits which are hoarded and frozen.

The relationship of the money supply and the circulation of money by checks has been dealt with in detail throughout the book, so that it is not necessary to repeat the argument, although this table emphasizes and makes clear the validity of the argument that national employment and production depend strictly upon the volume of money in circulation.

Selected series on business activity

[Data without seasonal adjustment unless otherwise specified]

Year and month	Industrial production [1] (1923–25=100)	Factory employment [1] (1923–25=100)	Wholesale commodity prices (1926=100)	Security prices			Capital issues (millions of dollars)			Bank debits, 141 centers (millions of dollars)	Purchasing power of the dollar at wholesale (1926=$1.00)
				U. S. Government bonds	60 corporate bonds	420 common stocks (1926=100)	Total	New	Refunding		
1926	108	101.7	100.0	105.0	97.6	100.0	7,359	6,314	1,044	607,956	$1.000
1927	106	99.5	95.4	108.2	100.7	118.3	9,774	7,555	2,218	673,861	1.048
1928	111	99.7	96.7	106.4	100.8	149.9	9,898	8,040	1,858	806,405	1.034
1929	119	106.0	95.3	102.0	98.0	190.3	11,513	10,091	1,422	935,027	1.049
1930	96	92.4	86.4	105.7	99.3	149.8	7,619	6,909	709	661,956	1.157
1931	81	78.1	73.0	103.6	90.9	94.7	4,038	3,089	949	481,357	1.370
1932	64	66.3	64.8	98.5	69.5	48.6	1,751	1,194	557	322,366	1.543
1933	76	73.4	65.9	102.5	73.4	63.0	1,063	720	343	[2]282,706	1.517
1934	79	85.7	74.9	103.5	84.5	72.4	2,160	1,386	774	331,505	1.335
1935	90	91.3	80.0	106.1	88.6	78.3	4,699	1,457	3,242	374,171	1.250
1936	105	97.8	80.8	107.0	97.5	111.0	6,214	1,972	4,242	428,606	1.238
1937	110	105.8	86.3	104.4	93.4	111.7	3,878	2,080	1,798	433,042	1.159
1926											
January	106	102.7	103.2	105.1	96.0	101.8	728	646	82	54,145	.969
February	105	102.4	102.0	106.0	96.6	101.8	639	569	70	44,915	.980
March	106	102.0	100.6	106.0	96.3	95.8	651	606	45	56,464	.994
April	107	101.7	100.3	104.3	97.4	92.9	655	539	116	51,837	.997
May	106	101.1	100.5	104.7	98.1	93.2	662	648	14	48,020	.995
June	108	101.3	100.4	104.7	98.2	97.2	714	571	143	50,662	.996
July	108	101.0	99.5	104.6	97.7	100.0	584	524	60	50,959	1.005
August	110	101.5	99.1	104.2	97.5	102.9	343	284	59	47,011	1.009
September	111	102.0	99.7	104.3	97.7	104.3	489	446	43	46,954	1.003
October	111	102.0	99.4	104.5	97.5	101.6	572	508	64	52,535	1.006
November	110	101.4	98.4	105.4	98.6	103.1	700	433	267	47,384	1.016
December	107	101.0	97.9	106.2	99.0	105.4	622	541	81	57,070	1.021
1927											
January	107	100.4	96.5	106.9	99.7	105.6	951	817	134	54,714	1.036
February	108	100.8	95.8	107.3	99.6	107.9	941	685	256	48,220	1.044
March	110	100.4	94.7	108.9	100.1	109.1	662	559	103	58,518	1.056
April	108	100.2	94.1	109.1	100.5	111.1	885	651	234	55,583	1.063
May	109	100.1	94.2	109.7	100.6	114.2	960	685	275	54,143	1.062
June	107	100.1	94.1	109.2	100.0	115.4	942	743	199	56,820	1.063
July	106	99.7	94.3	106.8	100.0	117.2	456	432	24	53,682	1.060
August	106	99.6	95.2	107.3	100.9	122.0	608	440	168	53,702	1.050
September	104	99.1	96.3	107.5	101.3	127.7	597	486	111	56,750	1.038
October	102	98.4	96.6	107.7	101.7	126.7	1,011	842	169	59,201	1.035
November	101	97.9	96.3	108.5	101.9	129.6	733	464	269	57,085	1.038
December	102	97.4	96.4	109.3	102.2	133.1	1,028	750	278	65,441	1.037
1928											
January	107	97.3	96.4	109.1	102.2	134.4	762	561	201	62,885	1.037
February	109	97.8	95.8	108.9	102.2	132.3	853	600	253	54,493	1.044
March	108	97.9	95.5	109.3	102.1	137.9	960	595	365	70,634	1.047
April	108	97.7	96.6	108.8	102.1	145.9	1,038	699	139	67,003	1.035

[1] Adjusted for seasonal variation.

[2] March excluded; complete data not available on account of bank holidays.

Selected series on business activity—Continued

Year and month	Industrial production (1923-25=100)	Factory employment (1923-25=100)	Wholesale commodity prices (1926=100)	Security prices: U. S. Government bonds	Security prices: 60 corporate bonds	Security prices: 420 common stocks (1926=100)	Capital issues (millions of dollars): Total	Capital issues (millions of dollars): New	Capital issues (millions of dollars): Refunding	Bank debits, 141 centers (millions of dollars)	Purchasing power of the dollar at wholesale (1926=$1.00)
1928											
May	108	98.2	97.5	108.2	101.6	152.1	1,020	846	174	71,616	$1.026
June	108	98.7	96.7	107.4	100.3	145.3	1,023	795	228	72,485	1.034
July	109	99.3	97.4	105.7	99.8	144.2	439	399	40	58,981	1.027
August	110	100.4	97.6	103.5	99.4	148.3	271	251	20	58,504	1.025
September	113	100.9	98.6	103.8	99.9	156.6	543	488	55	63,176	1.014
October	115	101.7	96.7	103.7	100.0	159.1	769	702	67	72,894	1.034
November	117	102.7	95.8	104.8	100.4	171.1	999	942	57	71,349	1.044
December	118	103.3	95.8	103.9	99.7	171.4	1,221	1,162	59	82,386	1.044
1929											
January	119	104.2	95.9	103.0	99.7	185.2	1,062	913	149	82,814	1.043
February	118	105.0	95.4	101.8	99.2	186.5	1,043	915	128	70,777	1.048
March	118	105.3	96.1	100.2	98.5	189.1	1,016	956	60	83,524	1.041
April	121	106.4	95.5	101.6	98.7	186.6	810	675	135	74,750	1.047
May	122	106.6	94.7	101.5	98.3	187.8	1,529	1,137	392	76,535	1.056
June	125	107.0	95.2	100.9	97.5	190.7	748	731	17	69,666	1.050
July	124	108.1	96.5	101.5	97.5	207.3	954	894	60	77,631	1.036
August	121	108.4	96.3	100.8	97.1	218.1	888	863	25	77,344	1.038
September	121	107.3	96.1	101.0	96.6	225.2	1,622	1,314	308	77,617	1.041
October	118	106.6	95.1	102.0	97.5	201.7	870	836	34	95,527	1.052
November	110	104.4	93.5	105.0	97.4	151.1	298	280	18	82,090	1.070
December	103	101.9	93.3	104.8	98.6	153.8	676	579	97	66,752	1.072
1930											
January	106	100.6	92.5	104.0	98.7	156.3	849	781	68	60,423	1.081
February	107	99.0	91.4	104.2	98.7	165.5	602	566	36	52,625	1.094
March	103	97.7	90.2	105.7	99.7	172.4	841	769	72	65,723	1.109
April	104	97.0	90.0	104.8	99.7	181.0	934	882	52	62,916	1.111
May	102	95.7	88.8	105.5	100.0	170.5	1,184	1,089	95	61,811	1.126
June	98	93.9	86.8	106.2	99.9	152.8	772	711	61	62,312	1.152
July	93	91.2	84.4	106.2	100.2	149.3	585	553	32	52,744	1.185
August	90	89.0	84.3	106.0	100.8	147.6	269	183	86	45,993	1.186
September	90	87.7	84.4	106.2	101.6	148.8	494	380	114	48,636	1.185
October	88	86.7	83.0	106.5	99.8	127.6	435	364	71	54,460	1.205
November	86	85.3	81.3	106.8	98.1	116.7	260	248	12	42,176	1.230
December	84	83.8	79.6	106.4	94.8	109.4	395	383	12	52,107	1.256
1931											
January	83	82.4	78.2	106.6	97.8	111.3	613	431	182	46,253	1.279
February	86	81.4	76.8	105.5	97.8	119.8	225	206	19	38,031	1.302
March	87	81.1	76.0	105.6	97.2	121.6	702	560	142	47,011	1.316
April	88	81.0	74.8	105.1	95.2	111.6	616	413	203	46,440	1.337
May	87	80.7	73.2	106.2	94.8	98.3	473	349	124	43,930	1.366
June	83	79.2	72.1	106.5	94.2	95.1	404	260	144	45,299	1.387
July	82	78.7	72.0	105.4	95.4	99.1	270	225	45	39,451	1.389
August	78	77.5	72.1	105.2	92.9	95.3	127	120	7	34,027	1.387
September	76	76.0	71.2	104.0	88.4	85.4	288	245	43	36,700	1.404
October	73	73.9	70.3	98.8	82.0	69.2	46	45	1	38,802	1.422
November	73	72.6	70.2	99.0	82.4	71.7	133	112	21	29,069	1.425
December	74	72.4	68.6	95.3	73.1	58.4	144	123	21	36,345	1.458
1932											
January	72	71.8	67.3	91.3	75.1	57.5	199	185	14	33,569	1.486
February	69	71.4	66.3	93.6	74.9	56.5	95	74	21	27,251	1.508
March	67	69.9	66.0	95.9	75.9	57.8	191	162	29	29,889	1.515
April	63	67.6	65.5	98.3	67.9	45.7	143	71	72	29,923	1.527
May	60	65.3	64.4	97.7	62.2	39.8	125	91	34	25,411	1.553
June	59	63.6	63.9	97.6	60.6	34.3	154	84	70	27,103	1.565
July	58	61.9	64.5	99.7	62.1	35.2	155	105	50	25,239	1.550
August	60	62.4	65.2	101.3	72.4	52.1	174	63	111	25,215	1.534
September	66	64.4	65.3	101.6	74.6	58.4	142	83	59	25,931	1.531
October	67	65.8	64.4	101.5	70.8	51.4	137	109	28	25,298	1.553
November	65	66.2	63.9	101.4	69.2	47.9	77	45	32	20,750	1.565
December	66	65.5	62.6	102.3	67.7	47.1	160	125	35	26,787	1.597
1933											
January	65	64.9	61.0	103.6	70.7	49.1	110	65	45	24,466	1.639
February	63	65.0	59.8	102.5	68.5	44.9	57	20	37	22,437	1.672
March	59	62.2	60.2	101.1	66.0	43.3	20	17	3	--------	1.661
April	66	63.8	60.4	101.3	64.8	46.5	45	26	19	22,628	1.656
May	78	67.1	62.7	102.7	72.4	61.5	67	44	23	25,486	1.595
June	91	72.2	65.0	103.7	77.7	72.8	224	116	108	29,711	1.538
July	100	77.4	68.9	103.9	81.5	79.8	167	122	45	31,232	1.451
August	91	81.0	69.5	103.7	80.7	74.4	56	46	10	25,451	1.439
September	84	82.8	70.8	103.8	77.5	75.5	95	64	31	24,555	1.412
October	76	82.9	71.2	103.5	75.3	69.5	59	58	1	26,307	1.404
November	72	81.2	71.1	100.6	72.1	68.8	89	87	2	24,131	1.406
December	75	80.1	70.8	99.9	73.6	70.4	76	57	19	26,301	1.412

Selected series on business activity—Continued

Year and month	Industrial production (1923–25=100)	Factory employment (1923–25=100)	Wholesale commodity prices (1926=100)	Security prices			Capital issues (millions of dollars)			Bank debits, 141 centers (millions of dollars)	Purchasing power of the dollar at wholesale (1926=$1.00)
				U. S. Government bonds	60 corporate bonds	420 common stocks (1926=100)	Total	New	Refunding		
1934											
January	78	80.7	72.2	100.2	78.5	74.6	91	48	43	27,221	$1,385
February	81	83.9	73.6	102.1	84.0	80.9	89	81	8	25,015	1,359
March	84	86.9	73.7	103.1	84.8	77.2	149	99	50	29,685	1,357
April	86	88.3	73.3	103.7	87.0	79.6	242	141	101	31,231	1,364
May	86	89.0	73.7	104.7	86.1	71.8	144	100	44	28,757	1,357
June	84	88.3	74.6	104.9	86.3	73.1	308	119	189	30,142	1,340
July	76	87.3	74.8	105.6	86.1	71.4	376	214	162	27,752	1,337
August	73	86.4	76.4	104.3	83.9	67.5	209	180	29	25,706	1,309
September	71	81.3	77.6	102.3	83.0	67.4	71	39	32	23,894	1,289
October	74	84.4	76.5	103.4	84.1	67.6	157	122	35	26,627	1,307
November	75	84.6	76.5	103.7	84.3	68.3	137	104	33	24,662	1,307
December	86	86.4	76.9	104.1	85.8	69.6	187	139	48	30,811	1,300
1935											
January	90	88.8	78.8	105.4	87.6	70.1	141	92	49	29,980	1,269
February	90	90.0	79.5	106.4	87.4	68.0	96	50	46	25,659	1,258
March	88	90.7	79.4	106.2	84.5	64.6	290	105	185	31,649	1,259
April	86	90.8	80.1	106.8	85.5	67.5	508	90	418	31,550	1,248
May	85	90.1	80.2	106.8	87.0	73.1	474	83	391	30,108	1,247
June	87	89.2	79.8	107.0	88.3	75.5	512	55	457	31,475	1,253
July	86	90.1	79.4	107.3	89.2	78.8	640	127	513	33,287	1,259
August	88	91.1	80.5	106.5	89.9	83.0	425	194	231	30,268	1,242
September	91	91.8	80.7	104.7	90.4	85.0	438	173	265	29,031	1,239
October	95	93.0	80.5	104.9	89.8	85.2	368	148	220	32,577	1,242
November	96	94.1	80.6	105.3	91.1	93.3	384	118	266	32,227	1,241
December	101	94.5	80.9	105.2	92.4	95.3	422	221	201	36,360	1,236
1936											
January	97	94.3	80.6	105.8	95.3	100.1	402	123	279	35,424	1,241
February	94	92.8	80.6	106.3	97.2	106.1	303	107	196	31,572	1,241
March	93	93.0	79.6	106.8	96.6	108.7	763	128	635	37,496	1,256
April	101	94.3	79.7	107.0	95.9	109.0	986	176	810	34,783	1,255
May	101	95.7	78.6	107.1	95.5	101.0	420	112	308	33,225	1,272
June	104	96.7	79.2	106.9	96.2	105.6	734	218	516	37,503	1,263
July	108	98.4	80.5	106.6	97.1	109.2	340	104	236	34,816	1,242
August	108	99.3	81.6	107.2	97.7	113.0	297	217	80	31,469	1,225
September	109	99.9	81.6	107.2	98.6	114.1	409	178	231	33,242	1,225
October	110	100.8	81.5	106.9	99.6	118.7	464	186	278	37,313	1,227
November	114	102.8	82.4	108.2	99.8	124.2	372	158	214	35,869	1,214
December	121	104.9	84.2	107.9	99.9	122.8	725	266	459	45,896	1,188
1937											
January	114	105.2	85.9	107.3	100.3	126.0	603	244	359	39,487	1.164
February	116	106.0	86.3	107.2	100.0	129.5	527	190	337	34,536	1.159
March	118	107.3	87.8	105.2	98.5	129.9	384	187	197	42,014	1.139
April	118	108.4	88.0	102.6	96.6	124.5	303	159	144	37,144	1.136
May	118	109.1	87.4	103.3	96.2	116.3	265	149	116	34,416	1.144
June	114	108.4	87.2	103.5	95.0	113.6	560	360	200	36,464	1.147
July	114	109.3	87.9	104.0	95.3	117.8	341	248	93	36,914	1.138
August	117	108.6	87.5	104.0	94.8	120.5	188	79	109	31,896	1.143
September	111	107.2	87.4	103.3	91.3	106.4	221	154	67	33,370	1.144
October	102	105.1	85.4	103.5	86.4	91.4	204	96	108	36,085	1.171
November	88	100.6	83.3	104.0	83.3	82.9	137	95	42	31,603	1.200
December	84	95.1	81.7	104.7	82.7	82.2	165	123	42	39,114	1.224
1938											
January	80	90.0	80.9	105.3	80.6	81.6	122	93	29	32,084	1.236
February	79	88.9	79.8	105.4	79.3	80.7	199	82	117	25,548	1.253
March	79	87.4	79.7	105.0	76.0	77.9	245	126	119	32,119	1.255
April	77	85.4	78.7	104.8	73.8	70.7	352	197	155	31,169	1.271
May	76	83.7	78.1	106.1	76.5	73.9	217	157	60	28,841	1.280
June	77	82.4	78.3	106.0	75.3	73.1	511	347	164	32,797	1.277
July	83	82.9	78.8	105.7	80.8	88.0	466	390	75	30,505	1.269
August	88	85.1	78.1	105.9	81.3	89.5	415	180	235	28,270	1.280
September	-------	-------	78.3	104.8	78.7	86.0	-------	-------	-------	29,525	1.277

Sources: Industrial production, Board of Governors of the Federal Reserve System; factory employment, Board of Governors of the Federal Reserve System; wholesale commodity prices, Bureau of Labor Statistics. Security prices: U. S. Government bonds, Board of Governors of the Federal Reserve System; corporate bonds, Standard Statistics Co.; common stocks, Standard Statistics Co.; capital issues, Commercial and Financial Chronicle and U. S. Department of Commerce; bank debits, Board of Governors of the Federal Reserve System; purchasing power of the dollar, Bureau of Labor Statistics.

SOME IMPROVEMENTS THAT HAVE BEEN ACCOMPLISHED AND SOME THAT ARE NEEDED IN OUR MONETARY SYSTEM

It will interest students to know that the Seventy-third and Seventy-fourth Congresses since March 1933 have taken various steps to improve the monetary structure, the more important of which are as follows:

Made all money legal tender.

Abolished the national-bank note.

Removed gold from domestic circulation.

Stopped the minting of gold and put it in bars in the vaults to be used exclusively as a commodity, or in the payment of international balances upon permit of the Secretary of the Treasury.

Outlawed all future dollar contracts payable in gold by weight.

Made all existing dollar contracts payable by gold in weight subject to payment by lawful money or legal tender.

Established a guaranty of bank deposits up to $5,000, etc.

Authorized the expansion of the currency through $1 silver certificates, and actually increased such currency by about a billion dollars.

Authorized gold to be sold for commodity uses and for payment of foreign balances, and gold has been made salable at the price of $35 an ounce for such uses by the Secretary of the Treasury.

Authorized the purchase of silver until the silver held by the United States shall equal one-fourth of the gold so held.

Passed laws to regulate the security market and provided safeguards to prevent run-away speculation in securities by inflated credit.

Removed the auxiliary corporations through which banks speculated in securities.

Authorized the expansion of credit through the sale of Government bonds to the banks in providing public works and public relief to people in distress.

Passed a new Banking Act of 1935, establishing the Federal Reserve Board of Governors, of seven members, giving them control over the expansion and contraction of credit and currency.

Given the Federal Reserve Board power to veto the election of the president of any Federal Reserve bank.

Given the Federal Reserve Board absolute control of the interest and discount rate of the Federal Reserve banks.

Given the Board the right to raise the reserves of member banks 100 percent.

Given the Board the power, through an open-market committee, to require the Federal Reserve banks to buy and sell bonds as a means of expanding and contracting credit.

Expanded the power of member banks to lend money on real estate.

Expanded the power of the Reserve banks to discount bankable assets of member banks.

Used the public credit on a colossal scale to relieve the most acute effects of the existing depression.

Greatly improved the value of Government bonds and lowered the rates of interest on the public debt.

Its policies have resulted, by the sale of bonds to the banks, in increasing the demand bank deposits, the money supply of the country, until in volume they are steadily approaching normal;

$11,000,000,000 of demand deposits, nevertheless, are inactive as money being held as corporate reserves.

The question of monetary reform has been actively under discussion in the Seventy-fifth Congress without any final action being taken, but it is confidently expected by advocates of monetary reform that the Seventy-sixth Congress will act in perfecting the national monetary system.

The pending bills propose the Government taking over the stock of the Federal Reserve banks, the declaration of a congressional monetary policy, the expansion of the powers of the Board of Governors of the Federal Reserve System, eliminating the open market committee and the Federal Reserve Advisory Council, establishing a dollar of uniform, permanent, debt-paying, purchasing power by regulating the volume of money. There will be considered probably the more equitable distribution of money by States, the establishment of one form of currency, the coordination of agencies affecting monetary control, such as the Federal Deposit Insurance Corporation, the Comptroller of the Currency, the Secretary of the Treasury; and making all banks members of the Federal Reserve System.

Over a thousand pages of testimony was taken by the Banking and Currency Committee of the House during 1938. (Advanced students will find the congressional hearings of interest.)

The Committee on Banking and Currency of the United States Senate proposed a careful examination of the public control and regulation of the value of money before the meeting of the Seventy-sixth Congress.

The subject matter will also be considered by the Temporary National Economic Committee, as directed by Senate Joint Resolution No. 300.

Modified bills by Congressmen T. Alan Goldsborough, Wright Patman, and Charles G. Binderup are expected to be under consideration in January 1939.

A FEW QUOTATIONS OF NOTABLE LEADERS

Benjamin Franklin, on being asked in Great Britain how he accounted for the prosperous condition of the Colonies, said:

> That is simple. It is only because in the Colonies we issue our own money. It is called colonial scrip, and we issue it in the proper proportion to the demand of trade and industry.

It was not very long until this information was brought to the Rothschilds' bank, and they saw that here was a nation that was ready to be exploited; here was a nation that had been setting up an example that they could issue their own money in place of the money coming through the banks. So the Rothschild Bank caused a bill to be introduced in the English Parliament which provided that no colony of England could issue their own money. They had to use English money. Consequently the Colonies were compelled to discard their scrip and mortgage themselves to the Bank of England in order to get money. For the first time in the history of the United States our money began to be based on debt.

Benjamin Franklin stated that in 1 year from that date the streets of the Colonies were filled with the unemployed, because when England exchanged with them, she gave the Colonies only half as many

units of payment in borrowed money from the Rothschild Bank as they had in scrip. In other words, their circulating medium was reduced 50 percent, and everyone became unemployed. The poor-houses became filled, according to Benjamin Franklin's own statement.

Mr. Franklin went further than that. He said that this was the original cause of the Revolutionary War. In his own language:

The Colonies would gladly have borne the little tax on tea and other matters had it not been that England took away from the Colonies their money, which created unemployment and dissatisfaction.

(As narrated by Hon. C. G. Binderup in a speech on the floor of the House of Representatives, 75th Cong.)

Permit me to issue and control the money of a nation, and I care not who makes its laws * * * (Mayer Anselm Rothschild, 1790).

John Adams wrote to Thomas Jefferson in 1787:

All the perplexities, confusion, and distress in America arise, not from defects in the Constitution or confederation, not from want of honor or virtue, so much as from downright ignorance of the nature of coin, credit, and circulation.

Thomas Jefferson said:

I believe that banking institutions are more dangerous to our liberties than standing armies. Already they have raised up a monied aristocracy that has set the Government at defiance. The issuing power should be taken from the banks and restored to the people to whom it properly belongs.

Ricardo says:

That commodities rise or fall in proportion to the increase or diminution of money I assume as a fact that is incontrovertible.

Andrew Jackson said:

If Congress has the right under the Constitution to issue paper money, it was given them to be used by themselves, not to be delegated to individuals or to corporations.

Adam Smith, called the father of political economy, said:

Money measures things and things measure money. Each measures the other by and according to its own abundance, by comparison. If you double the volume of money in circulation, you double the price of everything. By doubling the price you divide the debt because it takes only half as much labor or the products of labor to pay the same debt. If you divide the amount of money in circulation, you divide the price of everything. By dividing the price of everything, you double your debts, for it will take twice as much labor or the products of labor to pay the same debt.

John Stuart Mill tells us:

That an increase of the quantity of money raises prices and a diminution lowers them, is the most elementary proposition in the theory of currency, and without it we should have no key to any of the others.

The few who can understand the system (check money and credits) will either be so interested in its profits, or so dependent on its favors, that there will be no opposition from that class, while on the other hand, the great body of the people mentally incapable of comprehending the tremendous advantage that capital derives from the system, will bear its burdens without complaint, and perhaps without even suspecting that the system is inimical to their interests. (From a letter written by the Rothschild Bros. of London, England, to a New York firm of bankers, June 25, 1863.)

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Salmon P. Chase, Secretary of the Treasury, 1861–64, Chief Justice, United States Supreme Court, 1864–73, said:

My agency in promoting the passage of the National Bank Act was the greatest financial mistake of my life. It has built up a monopoly which affects every interest in the country. It should be repealed; but before that can be accomplished, the people will be arrayed on one side and the banks on the other, in a contest such as we have never seen before in this country.

In 1872 Horace Greeley wrote his opinion of the National Banking Act. in part as follows:

While boasting of our noble deeds, we are careful to conceal the ugly fact that by our iniquitous money system we have nationalized a system of oppression, which, though more refined, is not less cruel than the old system of chattel slavery.

James G. Blaine, former candidate for the Presidency who, on the floor of the House on February 10, 1876, said:

* * * the money question should be approached in no spirit of partisan bitterness * * *. Firmly attached to one political party myself, firmly believing that parties in free government are as healthful as they are inevitable, I still think there are questions about which parties should agree never to disagree, and of these are the essential nature and value of the circulating medium.

James A. Garfield stated:

Whoever controls the volume of money in any country is absolute master of all industry and commerce.

Benjamin Harrison said:

If there is one measure better calculated than another to produce that state of things when the rich are getting richer and the poor are daily getting poorer it is a metallic currency.

Woodrow Wilson, 1916, said:

A great industrial nation is controlled by its system of credit. Our system of credit is concentrated. The growth of the Nation, therefore, and all our activities are in the hands of a few men * * *. We have come to be one of the worst ruled, one of the most completely controlled and dominated Governments in the civilized world—no longer a Government by free opinion, no longer a Government by conviction and the vote of the majority, but a Government by the opinion and duress of small groups of dominant men.

President Wilson, in advocating the Federal Reserve Act, said:

We must have a currency, not rigid as now, but really elastic, responsive to sound credit, the expanding and controlling credit of everyday transactions, the normal ebb and flow of personal and corporate dealings. Our banking laws must mobilize reserves; must not permit the contraction anywhere in a few hands of the monetary resources of the country or their use for speculative purposes in such volume as to hinder or impede or stand in the way of other legitimate more fruitful uses. And the control of the system of banking and of issues which our new law is to set up must be public, not private, must be vested in the government itself so that banks may be instruments, not masters, of business and of the individual enterprise and initiative.

The late Hon. Charles A. Lindbergh, Sr., in his book "The Economic Pinch", page 95, writing of the panic of 1920, said:

Under the Federal Reserve Act panics are scientifically created; the present panic is the first scientifically created one, worked out as we figure a mathematical problem.

Thomas Edison said:

The only dynamite that works in this country is the dynamite of a sound idea. I think we are getting a sound idea on the money question. The people have an

instinct which tells them that something is wrong and that the wrong somehow centers in money.

Don't allow them to confuse you with the cry of "paper money." The danger of paper money is precisely the danger of gold—if you get too much it is no good. There is just one rule for money and that is to have enough to carry all the legitimate trade that is waiting to move. Too little and too much are both bad. But enough to move trade, enough to prevent stagnation on the one hand, not enough to permit speculation on the other hand, is the proper ratio.

If our Nation can issue a dollar bond it can issue a dollar bill. The element that makes the bond good makes the bill good also. The difference between the bond and the bill is that the bond lets money brokers collect twice the amount of the bond and an additional 20 percent interest, whereas the currency pays nobody but those who contribute directly in some useful way.

It is absurd to say that our country can issue $30,000,000 in bonds and not $30,000,000 in currency. Both are promises to pay; but one promise fatters the usurer and the other helps the people.

It is the people who constitute the basis of government credit. Why then cannot the people have the benefit of their own gilt-edge credit by receiving non-interest-bearing currency—instead of bankers receiving the benefit of the people's credit in interest-bearing bonds? If the United States Government will adopt this policy of increasing its national wealth without contributing to the interest collector—for the whole national debt is made up of interest charges—then you will see an era of progress and prosperity in this country such as could never have come otherwise.

Henry Ford said:

The function of money is not to make money but to move goods. Money is only one part of our transportation system. It moves goods from man to man. A dollar bill is like a postage stamp; it is no good unless it will move commodities between persons. If a postage stamp will not carry a letter, or money will not move goods, it is just the same as an engine that will not run. Someone will have to get out and fix it.

In May 1928, 100 prominent British leaders connected with the productive industries sent to Prime Minister Baldwin the following statement:

We believe that a more stable system of currency credit and a means of stabilizing the price level are prerequisite to the restoration of prosperity of the great basis industries of this country. It would do far more than the expedients which the Government has been compelled to adopt. (New York Times, May 27, p. 20, column 3.)

Mr. F. W. Pethick-Lawrence, in 1929–31 financial secretary to the British Treasury, stated:

I am convinced * * * that unemployment as it exists today is not an economic but a monetary phenomenon; a stabilized price level with neither inflation nor deflation is the only workable solution.

Frank A. Vanderlip, former Assistant Secretary of the Treasury, in February 1935, said:

We have already tried borrowing and spending our way to recovery. We have made numberless hopeful and well-meant experiments, aimed to bring us out of the depression. Thus far we have not emerged, nor will we—until the fatal defects of our money system have been corrected. To those defects, more than to any other cause, I attribute the depression.

What is it we want of our currency? We want money in which we will have unshaken confidence; confidence that it will be stable in its value. We want a dollar that will, in the language of the President, "not change its purchasing and debt-paying power during the succeeding generation."

And again:

Congress should fix a permanent standard of value, not a permanent gold weight, for the dollar; so that the dollar shall always buy the same gross section of commodities measured by the price index.

Then Congress should create an executive authority to carry out its intention. It should provide a mechanism for the management of our currency.

On October 22, 1933, President Roosevelt said to the people of the United States:

When we have restored the price level, we shall seek to establish and maintain a dollar which will not change its purchasing and debt-paying power during the succeeding generation. I have said that in my message to the American delegation last July, and I say it now once more. (The Public Papers and Addresses of Franklin D. Roosevelt, vol. 2, p. 426.)

Marriner Eccles, chairman of the Board of the Federal Reserve System, said in Collier's on June 8, 1935:

The banks can create and destroy money. Bank credit is money. It is the money we do most of our business with, not with that currency which we usually think of as money.

Maj. L. L. B. Angas, "Slump Ahead in Bonds":

The modern banking system manufactures "money" out of nothing; and the process is perhaps the most astounding piece of "sleight of hand" that was ever invented. Banks in fact are able to create (and cancel) modern "deposit money." They can in fact inflate and deflate, mint and unmint, the modern "ledger-entry" currency.

Robert H. Hemphill, former credit manager of the Federal Reserve Bank of Atlanta:

If all bank loans were paid, no one would have a bank deposit, and there would not be a dollar of currency or coin in circulation. This is a staggering thought. We are completely dependent on the commercial banks. Someone has to borrow every dollar we have in circulation, cash or credit. If the banks create ample synthetic money, we are prosperous; if not, we starve. We are absolutely without a permanent monetary system. When one gets a complete grasp upon the picture, the tragic absurdity of our hopeless position is almost incredible—but there it is. It (the banking problem) is the most important subject intelligent persons can investigate and reflect upon. It is so important that our present civilization may collapse unless it is widely understood and the defects remedied very soon.

Ralph M. Hawtrey, assistant secretary of the British Treasury:

Banks lend by creating credit. They create the means of payment out of nothing.

Irving Fisher, Professor Emeritus of Economics at Yale, says—

When a bank lends or invests, it extends credit, i. e., creates check-book money. When it gets loans paid or sells investments, it contracts credit, i. e., destroys check-book money. In normal times such creation and destruction of money roughly balance. But when they do not balance the Nation's money is inflated or deflated and causes a boom or a depression.

Sumner H. Slichter, Professor of Business Economics at Harvard, says in his Modern Economic Society:

When banks grant credit by creating or adding to deposits subject to check * * * new dollars are created. It is true that the new dollars are not stamped out of gold; they are credit dollars and they are created by the stroke of the pen rather than by dies and the stamping machines, but their purchasing power is not less than that of the dollars coined at the Government mint. In other words, the principal way in which dollars are created in modern economic society is by borrowing. This means that the number of dollars in existence in any particular time depends upon the willingness and ability of banks to lend. The volume of purchasing power fluctuates with men's state of mind; the growth of pessimism may suddenly throw millions of men out of work, or the growth of confidence may create thousands of jobs overnight.

Viscount D'Abernon, formerly a prominent banker and after the war the British Ambassador to Germany, states:

It is too much the custom to act as though prices were born and not made—as though they were sent down by Providence independently of human action,

and as if they had to be accepted like the gentle rain from heaven. Such a view is, in my judgment, a profound mistake. The price level is determined in the main by human action and by wise or unwise decisions. A stable price level is an achievement of intelligence and not an accident of nature.

Lord Vernon, a prominent leader of the coal industry, states:

1. Movements to change wages and hours of labor up or down are the main cause of industrial strife.
2. These movements are largely due to changes in the value of money, which is expressed by the average level of prices.
3. Changes in the value of money further aggravate the trouble by opening out a gap between wholesale prices and the cost of living.
4. For these reasons it is urgently necessary that the value of money should be stabilized in the interests of industrial peace.

Sir Reginald McKenna, chairman of the board, London City Midland, largest in the world, said:

History has shown that, apart perhaps from wars and religious intolerance, no single factor has been more productive of misery and misfortune than the high degree of variability in the general price level. This may sound like an extravagant statement, but so far from being of the nature of a demogogic outburst it is clearly demonstrable from the course of events in various countries ever since money became an important element in the life of civilized communities. A stable price level is a thing to be desired, second only to international and domestic peace.

And again in the Midland Bank Monthly after the sterling pound had been taken off gold, he says in part:

In the past 4 years the progress of ideas has been rapid. This is evident to any reader of speeches on monetary policy delivered 10 years ago and today by members of the governments in office. The maintenance or restoration of any particular gold value for sterling—or, if the expression be preferred, of any particular sterling price of gold—is no longer regarded by both Government and central bank as the dominant objective of monetary policy. In fact, the gold value of sterling has dwindled by 40 percent—neither the Government nor the bank does anything about it, and no one is in the slightest degree disturbed, since the pound buys just as much goods and services as in 1931.

Every bank loan creates a deposit, and the repayment of that loan destroys the deposit. Every bank purchase of securities creates a deposit, and the sale of securities destroys the deposit.—(Reginald McKenna, chairman of the board, London City Midland.)

* * * a State issued paper money of full face value, guaranteed by a fully covered redemption fund composed of securities, issued automatically, retired automatically, self-regulating, never redundant, never deficient, neutral in its effect on prices but rising equal to any strain upon it; guaranteed against debasement by the State which issues it, and incapable of debasement by the community which purchases and uses it.—(Description of an ideal paper money by Dr. William A. Shaw in his well-known work entitled "The Theory and Principles of Central Banking.")

Never was a people so readily deceived nor so easily subdued as the British public of the present period. All one has to do is to raise the cry "inflation," and straightway all classes turn aside from the only road leading to safety, plenty, peace, and happiness.—(Arthur Kitson in The Bankers' Conspiracy.)

When it is remembered that kings and governments have, throughout the ages, insisted with jealous care on their prerogative of issuing money and controlling currency within their jurisdiction, it is somewhat strange to find modern states accepting as axiomatic, a limitation of their sovereignty in the sphere of money, so far-reaching in its effects on their own powers and on the daily lives of their citizens, as is involved in their agreeing to conform in all circumstances to a standard of value over which they have no control.—(Planned Money, by Sir Basil Blackett.)

Money is a social instrument and morally belongs to the people.
Money is merely a title to wealth.
It is redeemed every time it is accepted by the public for goods and services and needs no gold redemption.—(Arthur Kitson.)

The youth who can solve the money question will do more for the world than all the professional soldiers of history.—(Henry Ford, My Philosophy of Life.)

* * * the cheque alone is manufactured by the bankers without any limit or restriction by law. By this interesting development the manufacture of currency, which for centuries has been in the hands of Governments has passed, in regard to a very important part of it, into the hands of companies for the convenience of their customers and the profits of their shareholders.—(Hartley Withers, Esq., Business of Finance.)

Banks create credit. It is a mistake to suppose that bank credit is created to any important extent by the payment of money in the banks.—(Encyclopedia Britannica.)

Now, curious as it may seem at first glance, it is substantially correct to say the banks have the power to create money.—(Francis Williams, Esq., (Daily Herald) Democracy and France.)

People often talk of money going abroad or of foreign money coming here, but as a fact when gold is not in use money is incapable of migration. The title to the money may change * * * but the change of ownership does not remove the money, which necessarily remains and can only be expended where it was created. No exchange transaction, no purchase or sale of securities, no import of foreign goods or export of our own can take money out of the country or bring it here. Bank loans and their repayment, bank purchases and sales are in substance the sole cause of variation in the amount of our money.—(Rt. Hon. Reginald McKenna.)

The difference between actual production and possible production represents the cost to the people of the United States of maintaining present financial institutions.

It should, by now, be quite apparent that any restriction of production results in an impoverishment of society—so long as the need for the restricted goods is not universally satisfied.

A flow of buying power must be released which will be capable of commanding the flow of desired goods and services. The limit should be set only by our resources, manpower, equipment, and technology.

If production were released, the present conflict between labor and capital would seem to be automatically resolved. In order to distribute the goods and services listed in the Budget, workers would have to be paid the most possible in contradistinction to present practice, which compels employers to pay in most cases the least possible.

At present the United States habitually exports more than it imports. We have become a creditor nation. Such a condition compels either a reduction of our exports, a repudiation by foreign countries of their debts, or both. And both are occurring.

Keeping in mind that wealth is made up of real things in the physical world and is not a mere bookkeeping transaction, it becomes apparent that the period from 1923 to 1929, instead of being a time of extravagance, represented in fact an orgy of saving.

Those who regret the older days with their half-solved problems often fail to realize that there can be no going back * * *. Either man must adjust himself to modern technology or he must prepare for chaos and destruction.—(The Chart of Plenty, by Harold Loeb.)

EXTRACTS FROM THE ADDRESS OF THE RT. HON. REGINALD MCKENNA, CHAIRMAN OF THE MIDLAND BANK, JANUARY 26, 1938, AS GIVEN IN THE LONDON ECONOMIST, JANUARY 29, 1938

My lords, ladies, and gentlemen: The year 1937 opened with a good prospect of sustained business improvement. The industrial outlook was so promising, indeed, that fears were expressed of a coming boom. There were signs of growing speculations on the stock exchange and in raw materials; some commodities, particularly metals, had made a disturbing jump. Speculation, however, was speedily checked by a reduction in the quantity of money and a decline in prices followed. The decline went so far as to cause some anxiety, and, although the quantity of money was later restored, the closing months of the year that had opened buoyantly were marked by a more subdued outlook.

DEPRESSING AMERICAN INFLUENCES

Meanwhile depressing influences had been at work in the United States. In April, President Roosevelt declared that some prices, particularly of the nonferrous metals, were too high. At the same time the gold scare based largely on unjustified inferences from that statement, gave rise to fears of a restrictive monetary policy and precipitated a general decline in stock-exchange quotations and primary commodity prices. But what might have been no more than a temporary break developed in the United States into a real business recession. The confidence of industrialists, already disturbed by the policy of the Government, became seriously shaken, and capital construction was arrested. Happily, no similar obstacle to business enterprise is present in Great Britian, and there is no indication here that the drop in stock-exchange quotations and commodity prices will lead to a comparable decline in general trade.

It is natural that a setback first in prices and then in trade should be taken to confirm the fears of people who are dubious about both the theory and practice of a managed currency. Management has meant cheap and abundant money, and in their view long-continued cheap money must lead to overexpansion of industry and trade, which has its inevitable reaction in a slump. The alleged benefits of cheap money, they tell us, have been exaggerated, while the danger of inflation is always present. Now they see that a fall in prices and a drop in employment have taken place while money is still cheap, and they regard this as definite condemnation of a managed currency.

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* * * Much had to be learnt and is being learnt, but, however difficult it may be to put on one side the ideas to which long usage of the gold standard has accustomed us, we find in practice that the system is working smoothly. In the light of our present knowledge a managed currency can no longer be regarded as a mere temporary makeshift while the gold standard is in abeyance.

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* * * It will be remembered that the gold standard, having been suspended on the outbreak of war, was brought into operation again in April 1925. It was maintained for over 6 years until September 1931, when once again it was suspended. For the first time we then set about controlling our currency without any active effort to restore the gold standard. We started a true experiment in management, and the experiment has now lasted for a period almost precisely as long as the restored gold standard was in operation, that is for rather over 6 years from September 1931 to the present time. In answering the question, then, how have we fared, we can compare our economic condition during two equal periods, one on gold and the other under management.

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* * * When the demands upon the Exchequer are as heavy as they are today, both for national defence and social services, I cannot imagine any Chancellor of the Exchequer closing his eyes to the immense economy in the service of the debt that has been made as a result of monetary policy.

The relative degree of cheapness and abundance of money in the two periods is indicated by a comparison of the Bank rate and the quantity of bank deposits. From 1925 to 1931 the average Bank rate was approximately 4⅚ percent. On the abandonment of the gold standard the rate was raised to 6 percent as a precautionary measure which was soon found to be unnecessary. It was lowered by stages until at the end of June 1932 it stood at 2 percent, where it has remained ever since. There were no less than 16 changes of Bank rate in the first period of 6 years, all of them consequent upon the obligation imposed on the Bank of England to protect its meagre gold stock. The subsequent stability at 2 percent has lasted over 5½ years. No previous period of stability of so long duration can be found in the last hundred years, a fact which suggests that the frequent description of present money rates as abnormal is hardly justified. It is difficult to draw a line between the normal and the abnormal, but a rate which is now in its sixth year and shows no likelihood of variation in the early future might perhaps put in a claim to being no more abnormal than any other. The effect of freedom from the restrictions imposed by the gold standard is no less apparent in the quantity of money than in the rate paid for its use. Bank deposits, which were about £1,800,000,000 on the average for 1931, rose to near £2,300,000,000 in 1937.

TRADE AND EMPLOYMENT

The increase in purchasing power shown by this growth of deposits has been as beneficial to industry and trade as to the Treasury. If we resume our comparison and consider our condition at the beginning and end of each of the 6-year periods, the conclusion is inescapable that, whatever other forces may have been in operation, a managed currency is at least consistent with flourishing trade. Let us look first at weekly wage rates, taking rates in 1924 as the basic figure of 100. In 1925 the corresponding figure was 102; by 1931 it had fallen below 97; but by last year it had risen again above 103. Taking the same year as the basis, profits, according to Sir Josiah Stamp's calculation, stood at 104 in 1925, dropped to 77 in 1931, but rose again to 120 in 1936, the last year for which this index is available. The figures of industrial production repeat the same story in another form—a decline over the first 6 years and a rise in the second by perhaps 50 percent. Thus it is evident that, while business was on balance dropping away in the earlier period, it was steadily improving in the later.

Wages and profits are a measure of the incomes of the mass of the population. Production measures the degree in which our industrial capacity is being used; it governs the total of employment and unemployment, the returns for which make perhaps a more striking comparison than any others. Between 1925 and 1931 the total of our insured workers rose by 1,200,000, but the employed fell by 200,000 and the unemployed rose in consequence by 1,400,000. This was how we stood at the end of the first 6-year period. In the second the insured workers increased by a further 800,000, but the number of those employed grew by as much as 2,100,000, thus reducing the unemployed by well over a million. What a contrast! a decline in employment of 200,000 in the first period; an increase of 2,100,000 in the second. No figures could be more convincing; no figures could exemplify more clearly the change in our economic condition in the two periods. We have still some way to go before we shall be utilizing our full productive capacity, but the experience of the past 6 years indicates that in currency and credit policy we have not been led astray in using the opportunities for intelligent management which the departure from gold presented. I have not suggested, and I would not for a moment do so, that the pronounced improvement in our position as between the two periods is due solely to the change in the monetary system. But I do suggest that there is nothing in our present condition to indicate that the change has been other than for the better or that it is fraught with unknown perils in the future.

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COURT DECISIONS ON MONEY

The following is a list of decisions relating to the powers of Congress over the issuance and regulation of the money of the United States (see Annotated Constitution of the U. S.):

Griswold v. *Hepburn*, 63 Ky. 20 (1865).
Legal Tender Cases, 12 Wall. 457, 545 (1871).
United States v. *Marigold*, 9 How. 560, 568 (1850).
Briscoe v. *Bank of Kentucky*, 11 Pet. 257 (1837).
Houston v. *Moore*, 5 Wheat. 1, 49 (1820).
Sturges v. *Crowninshield*, 4 Wheat. 122, 193 (1819).
Nortz v. *United States*, 294 U. S. 317, 328 (1935).
Civil Rights Cases, 109 U. S. 3, 18 (1883).
Baender v. *Barnett*, 255 U. S. 224 (1921).
Ling Su Fan v. *United States*, 218 U. S. 302 (1910).
Norman v. *Baltimore & O. R. Co.*, 294 U. S. 240 (1935).
Perry v. *United States*, 294 U. S. 330 (1935).
McCulloch v. *Maryland*, 4 Wheat. 316, 404 (1819).
Juilliard v. *Greenman*, 110 U. S. 421, 438, 449 (1884).
Veazie Bank v. *Fenno*, 8 Wall. 533, 548 (1869).
Merchants Nat. Bank v. *United States*, 101, U. S. 1 (1880).
Osborn v. *Bank*, 9 Wheat. 738 (1824).
Bank of United States v. *Bank of Georgia*, 10 Wheat. 333 (1825).
Ward v. *Smith*, 7 Wall. 447 (1869).
Farmers' & M. Nat. Bank v. *Dearing*, 91 U. S. 29, 33 (1875).
Legal Tender Case, 110 U. S. 445 (1884).
Dooley v. *Smith*, 13 Wall. 604 (1872).
Norwich & W. Railroad Co. v. *Johnson*, 15 Wall. 195 (1873).
Morrow v. *Henneford*, 182 Wash. 625 (1935).
Ogden v. *Saunders*, 12 Wheat. 213, 265 (1827).

TESTIMONY OF ROBERT L. OWEN BEFORE COMMITTEES OF THE HOUSE AND SENATE [1]

Goldsborough bill, H. R. 10517, Seventy-second Congress, first session.

Gold Reserve Act of 1934, S. 2366, Seventy-third Congress, second session.

Banking Act of 1935, H. R. 5357, Seventy-fourth Congress, first session.

Goldsborough bill, H. R. 9216, Seventy-fourth Congress, second session.

Hearings before the Committee on Agriculture and Forestry, United States Senate, Seventy-fifth Congress, first session, on farm commodity prices.

Thomas bill, S. 1990, Seventy-fifth Congress, first session.

Patman bill, H. R. 7230, Seventy-fifth Congress, third session.

[1] Mr. Owen is also the author of Sound, Safe, Sane Money, published in March 1933; and Stabilized Dollars—Permanent Prosperity, published in January 1937. Both are now out of print.

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